



EDUCATION AND SCIENCE IN 1968

BEING A REPORT OF
THE DEPARTMENT OF EDUCATION AND SCIENCE

*Presented to Parliament by the Secretary of State for Education and Science
by Command of Her Majesty
March 1969*

LONDON

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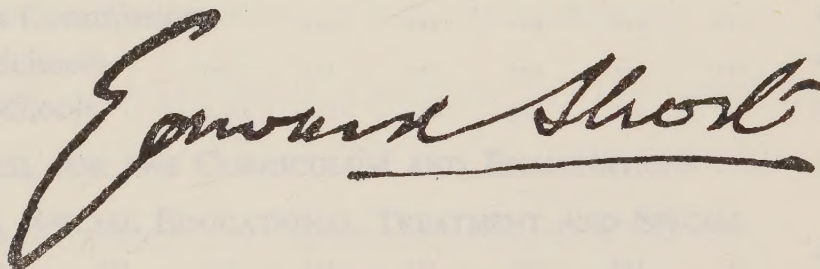
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**REPORT OF THE DEPARTMENT OF
EDUCATION AND SCIENCE**

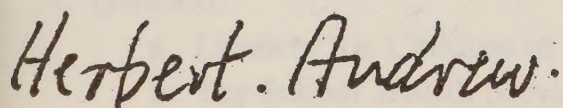
To the Queen's Most Excellent Majesty

MAY IT PLEASE YOUR MAJESTY

I submit to your Majesty the Report of the Department of Education and Science for 1968. During the first three months of the year the Rt. Hon. Patrick Gordon Walker, M.P., was Secretary of State.

A handwritten signature in dark ink, reading "Edward Short". The signature is written in a cursive style with a long, sweeping underline.

Secretary of State.

A handwritten signature in dark ink, reading "Herbert Andrew". The signature is written in a cursive style with a long, sweeping underline.

Permanent Under-Secretary of State.

27th March 1969.

TABLE OF CONTENTS

PART ONE

PAGE

A GENERAL SURVEY

9

PART TWO

THE YEAR'S EVENTS

SECTION I—THE SCHOOLS (ENGLAND AND WALES)

INTRODUCTION	...	...	...	...	...	...	...	...	...	28
1. MAINTAINED SCHOOLS	...	...	...	...	...	...	...	...	...	28
a. Population	...	...	...	...	...	...	...	...	...	28
b. Supply of Schools	...	...	...	...	...	...	...	...	...	29
c. Supply of Teachers	...	...	...	...	...	...	...	...	...	33
d. The Organisation of Secondary Education	...	...	...	...	...	...	...	...	...	36
e. The Urban Programme and Nursery Education	...	...	...	...	...	...	...	...	...	38
f. The Education of Immigrants	...	...	...	...	...	...	...	...	...	39
2. SCHOOLS NOT MAINTAINED BY LOCAL AUTHORITIES	...	...	...	...	...	...	...	...	...	40
a. Public Schools Commission	...	...	...	...	...	...	...	...	...	40
b. Direct Grant Schools	...	...	...	...	...	...	...	...	...	40
c. Independent Schools	...	...	...	...	...	...	...	...	...	41
3. THE SCHOOLS COUNCIL FOR THE CURRICULUM AND EXAMINATIONS	...	...	...	...	...	...	...	...	...	44
4. HANDICAPPED PUPILS, SPECIAL EDUCATIONAL TREATMENT AND SPECIAL SCHOOLS	...	...	...	...	...	...	...	...	...	46
5. CENTRAL ADVISORY COUNCIL FOR EDUCATION (ENGLAND)	...	...	...	...	...	...	...	...	...	50
6. GENERAL	...	...	...	...	...	...	...	...	...	51
a. Licences for Children in Entertainment	...	...	...	...	...	...	...	...	...	51
b. The School Health Service	...	...	...	...	...	...	...	...	...	51
c. Psychologists in Education Services	...	...	...	...	...	...	...	...	...	51
d. Health Education	...	...	...	...	...	...	...	...	...	52
e. The School Meals Service	...	...	...	...	...	...	...	...	...	52
f. Milk in Schools Scheme	...	...	...	...	...	...	...	...	...	53

SECTION II—FURTHER EDUCATION (ENGLAND AND WALES)

INTRODUCTION	...	...	...	...	...	...	...	...	...	55
1. TECHNICAL EDUCATION	...	...	...	...	...	...	...	...	...	55
a. Major Developments	...	...	...	...	...	...	...	...	...	55
b. Industrial Training Act 1964	...	...	...	...	...	...	...	...	...	57
c. General	...	...	...	...	...	...	...	...	...	60
d. Organisation of Courses	...	...	...	...	...	...	...	...	...	62
e. Art Education	...	...	...	...	...	...	...	...	...	64
f. National Film School	...	...	...	...	...	...	...	...	...	65

TABLE OF CONTENTS—*continued*

	PAGE
2. TEACHER TRAINING	656
a. Colleges and Students	656
b. Courses of Initial Training	658
c. Courses of Further Training	658
d. Administration	770
3. ADULT EDUCATION, PUBLIC LIBRARIES, THE YOUTH SERVICE AND SPORT	771
a. Adult Education	771
b. Public Libraries and Museums	771
c. The Youth Service	771
d. Community Provision	771
e. Sport and Physical Recreation	771
SECTION III—THE UNIVERSITIES (GREAT BRITAIN)	
INTRODUCTION	88
a. University Grants Committee	88
b. University Finance	88
c. University Development	88
d. Royal College of Art	88
e. College of Aeronautics, Cranfield	88
f. Open University	88
g. University Academic Salaries and Superannuation	88
h. Publications	99
SECTION IV—CIVIL SCIENCE (UNITED KINGDOM)	
INTRODUCTION	99
a. Finance	99
b. The Research Councils	99
c. The Council for Scientific Policy	99
d. International Relations (Science)	99
e. Scientific and Technical Information	99
f. National Lending Library for Science and Technology	100
SECTION V—WALES AND MONMOUTHSHIRE	
INTRODUCTION	100
a. Some Key Developments	100
b. The Schools	111
c. Further Education	111
d. Library Advisory Council (Wales)	111
e. Welsh Joint Education Committee... ..	111
SECTION VI—FINANCE AND GENERAL	
INTRODUCTION	111
1. FINANCE	111
a. Public Expenditure	111
b. Teachers' Salaries and Superannuation	122
c. Student Support	122
d. Educational Building	122

TABLE OF CONTENTS—*continued*

	PAGE
2. GENERAL	133
a. Educational Research	133
b. Educational Technology	135
c. Highly Qualified Manpower	137
d. Automatic Data Processing	140
e. Statistics	140
f. Local Government	141
g. Library	142
h. Information Services... ..	143
3. INTERNATIONAL RELATIONS (EDUCATION)	149
a. Other International Co-operation	149
b. Commonwealth Education Co-operation	151
c. Interchange of Teachers and other Educational Exchanges	152

APPENDICES

A. Grants offered in 1968–69 to National Voluntary Youth Organisations under the Social and Physical Training Grant Regulations, 1939	153
B. Grants offered in 1968–69 to National Voluntary Sports Organisations under the Physical Training and Recreation Act, 1937	155
C. Grants to National Associations under the Further Education (Grant) Regulations, 1959	157
D. (i) Overseas Assistants serving in England and Wales	157
(ii) Assistants from England and Wales serving in Europe and North Africa	157
E. Grants to Voluntary Bodies for Educational Services (under the Educational Services and Research Regulations, 1946, Grant Regulations No. 4)	158
F. (i) Orders under the Education Acts, etc.	159
(ii) Orders under the Charities Act, etc.	160
(iii) Schemes under the Endowed Schools Acts	160
G. Statutory Instruments made by the Secretary of State during the year	161
H. Research projects supported by the Department and completed during 1968	162
I. Research projects commissioned or accepted for grant aid by the Department in 1968	164
J. Publications: (i) Parliamentary Papers	166
(ii) Non-Parliamentary Publications	166
(iii) Circulars and Administrative Memoranda	169

LIST OF TABLES

1. Numbers of full-time pupils on the registers of maintained primary and secondary schools (other than nursery and special schools)	28
2. Numbers and proportions of 15-, 16- and 17-year-old pupils	29
3. Places started in major and minor school building projects	29

TABLE OF CONTENTS—continued

	PAGE
4. Proposals for new schools, significant enlargements and changes in character approved under Section 13 of the Education Act 1944 as amended ...	300
5. Proposals for the discontinuance of schools approved under Section 13 of the Education Act 1944 as amended	300
6. Voluntary school building	31
7. Grants and loan advances during 1968	31
8. Qualified teachers	33
9. Full-time qualified graduate teachers	34
10. Unqualified teachers	35
11. Married, qualified women teachers returning after a break of at least one year	36
12. Comprehensive schools in the maintained sector	38
13. School meals served to pupils in maintained schools in England and Wales	52
14. Children taking free milk on a day in the autumn term	54
15. Progress of building work in the further education sector since 1956 ...	60
16. Admissions to full-time courses of initial teacher training	67
17. Courses of further training for teachers organised by the Department ...	69
18. Expenditure by Local Authorities under the Public Libraries and Museums Act 1964	75
19. Capital grants offered to local voluntary bodies	79
20. Summary of public authorities' educational expenditure	119
21. Expenditure and Receipts on the Department's Votes	120
22. Costs per pupil	121
23. Costs per student hour	121
24. Educational Building 1965-68	128

PART ONE

A GENERAL SURVEY

Finance and Resources

The planned rate of growth of the education service was slowed down in 1968 by measures, announced in January,* designed to divert resources from home consumption to overseas trade and industrial investment. Total public expenditure on education was however still expected to grow by about 4 per cent both in 1969-70 and 1970-71†; and within this total the decisions on rate support grant announced in December allowed for current expenditure on education by local authorities to rise by about $3\frac{3}{4}$ per cent a year. It was explained by the Secretary of State (Mr. Edward Short) that this was estimated to be sufficient to maintain existing standards for rising numbers of pupils and students and to allow for some improvement in staffing standards in primary and secondary schools through the training and recruitment of record numbers of teachers. Elsewhere there would be only limited resources available for the improvement of standards.

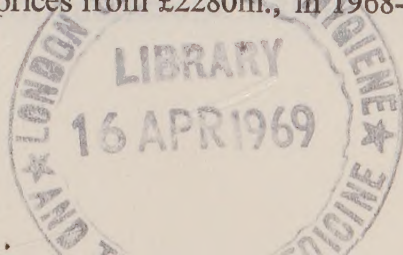
Early in January the Secretary of State (Mr. Gordon Walker) told the North of England Education Conference that much could be done in the primary schools with little extra expenditure to implement the curricular recommendations of the Plowden Report; that in secondary schools the major developments would be reorganisation, curriculum reform and a deliberate move away from premature specialisation; and that there would be continued expansion in further and higher education, moderated by greater cost consciousness and a more determined effort towards closer partnership by education and industry.

The Government confirmed during the year that the school leaving age would be raised in 1972-73; and in January 1969 the Secretary of State (Mr. Edward Short) announced a special building programme for this purpose, reviewed the prospect that the supply of teachers would build up, and commended the work of curricular preparation in the schools, helped by the Schools Council.

The unprecedented growth of public expenditure on education in the sixties has been a consequence of the growth of population of school age; the movement of population and the need to match new housing developments with new schools; the growing demand for further and higher education; and an improvement in standards. As a result the share of national resources devoted to the education service was five and a half per cent in 1967-68 compared with three and a half per cent of considerably smaller resources a decade earlier. In the same ten years spending on all the social services together more than doubled but education expenditure nearly trebled. While public spending as a whole doubled, that part for which the local authorities were responsible rose from 27 to 32 per cent of the bigger total.

* See *Education and Science in 1967*, Section VI, paragraphs 3 and 4.

† In a White Paper published in February, 1969 (Public Expenditure 1968-69 to 1969-70, Cmnd. 3936), the Chancellor of the Exchequer indicated that public expenditure on Education in Great Britain was expected to increase at constant prices from £2280m., in 1968-69 to £2385m. in 1969-70 and £2474m. in 1970-71.



The emphasis in recent years on the more efficient use of resources was sharply reinforced in 1968. Through a more productive use of facilities the colleges of education for example reorganised their work so as to provide effectively for a more than 20 per cent increase in student intake. The technical colleges too were increasingly conscious of the need, and the Committee of the National Advisory Council on Education for Industry and Commerce produced two more reports on the effective use of technical college resources. The first contained suggestions based on good practice for the more effective use of physical resources; the second (published in January 1969), based on a research study, discussed the contribution which might be made to the better use of resources by the application of costing and other financial techniques. At the same time the Committee of Vice-Chancellors and Principals was investigating the use of university buildings, and the University Grants Committee was associated with research projects concerned with the use of premises and standards of accommodation. Another aspect of the problem to which much thought was given during the year was the better deployment of the nation's qualified manpower, for example in the major reports sponsored by the Committee on Manpower Resources for Science and Technology. Against the background of a rapidly increasing demand for higher education it would be too easy for the service to consume its own product. Ministers drew attention to the need to determine how far it would be advisable for this process to develop and how far also it would be possible to deploy the teaching force more effectively.

The Government's policy of directing resources towards socially deprived areas—a historic landmark in the evolution of the country's educational service—made further progress in 1968. Programmes already announced were further processed, and in July the Home Secretary announced new Government proposals to initiate an urban programme of expenditure of £20 to £25 million over the next four years mainly on education, housing, health and welfare in areas of special social need. The first stage of the programme began in October with an invitation to 34 local authorities to propose expenditure of up to £3m. on projects which could quickly improve social conditions. Expenditure is being concentrated on the provision or improvement of nursery schools and classes, day nurseries and children's homes; assistance is given in the form of a new specific grant on approved revenue expenditure.

Educational Building

Attention was drawn by the Secretary of State (Mr. Edward Short) to the progress of school building work. In announcing record programmes for 1970–71 and 1971–72 and new special allocations for raising the school leaving age in 1972–73, Mr. Short emphasised the growing ability of LEAs to handle larger programmes; and the year saw the introduction of improved programming procedures. There was an increase in school building work under construction from £146m. to £147m. and the value of completions in the year showed an increase of £9m. to £91m. There were 837 new schools opened compared with 729 in 1967.

The immediate effect on school building of the Government's decision to postpone for two years the raising of the leaving age was withdrawal of the special capital allocations for 1968–69 and 1969–70 which had been notified

to authorities a year earlier. To help authorities whose plans for secondary reorganisation were closely linked with arrangements for raising the age, and to supplement provision already made for educational priority areas, an increase of £7m. per annum in the basic programme for England and Wales was announced. L.E.A.s were asked to review urgently their school building programmes and to submit by 16th February revised proposals for 1968-69 based on a realistic assessment of projects which could and should be started in that year.

In April details of the special £16m. programme for educational priority areas were announced. The programme was for 1968-70 and was additional to the basic school building programmes for these two years. Approval was given to 156 major projects (142 in England and 14 in Wales) worth in all about £13m. and £3m. was allocated for minor works. The projects were selected on the basis of criteria of social deprivation.

The total revised programme of starts for 1968-69 announced on 21st June was £129m. made up of a basic programme (£81.5m.), the special increase in the basic programme (£7m.), minor works (£27.5m.), allocation for educational priority areas (£8m.), and special schools (£5m.). The total value of the revised basic programme was thus £88.5m. From this total it was necessary to deduct the value of projects started before 1st April in excess of the authorised national total for 1967-68. The value of the projects authorised to start in the 1968-69 major programme was then a little over £70m.

In November announcements were made of the authorisation of projects in the major building programme for 1969-70 to the value of £85.5m. and later in the month of minor works allocations totalling £27.5m. The total programme for 1969-70 was made up in the same way as that for 1968-69 and totalled £129m. Also in November the L.E.A.s were notified of minor works allocations totalling £27.5m. for 1969-70. At the same time, the Secretary of State announced additional minor works allocations for 1968-69 amounting to over £ $\frac{3}{4}$ m. under special arrangements designed to reduce winter unemployment in the development areas in the north of England and Wales.

Early in January 1969 the Secretary of State (Mr. Edward Short) announced a special school building programme in connection with plans for raising the school leaving age to 16 in 1972-73. The announcement also referred to increased starts of £20m. in the ordinary school building programmes to meet the increasing tendency to voluntary staying on at school, to the supply of teachers in relation to the later leaving age and preparations for further reform of the curriculum.

The special building programme, to the value of £105m., would be spread over the three years 1970-71, 1971-72 and 1972-73. Authorised starts would be £25m., £35m., and £45m. respectively. Additional pupils expected to remain at school when the leaving age is raised to 16 in 1972-73 were now calculated at 287,000 compared with the estimate for the earlier planned date, 1970-71, of about 350,000, the difference being largely attributable to the continued increase in voluntary staying on beyond the present statutory leaving age.

At the same time the size of the ordinary school building programmes for 1970-71 and 1971-72 were announced. These total £135.5m. and £134.5m. : a major programme of £100m. in 1970-71 and £99m. in 1971-72, together with £30m. in each year for minor works and £5.5m. for special schools. The effect of adding the special programme for raising the age will be to bring total school building up to £160.5m. in 1970-71 and £169.5m. in 1971-72, compared with £135m. in 1969-70.

New agreed procedures for educational building were announced in July to replace the system of annual programmes. They consisted of arrangements designed to improve the control of educational investment and facilitate the orderly execution of building projects. The new system could not be fully operative until 1971-72, before which modified administrative arrangements would apply. The new system would have three phases corresponding with the sequence of events which would normally lead to the beginning of building operations: the "preliminary list" of projects for the completion of which a need was reasonably foreseeable within the next five years; the "design list", drawn from the preliminary list, on which detailed planning and design work was taking place and which could be expected to start in a specified year; and the "starts programme" of fully-planned and costed projects to be started in the specified year. Transfer from one phase to another would depend mainly on progress made on preparatory and planning operations and on the resources available. The system was intended to be flexible enough to accommodate both complicated and slower moving projects and those which might have to be planned and executed as a matter of urgency.

The further education building programme was reduced by about one-sixth as a result of the January measures, and on 5th February the L.E.A.s were asked to review projects as a result of which it was possible to draw up early in April a list of projects which could be authorised to start in 1968-69. At the same time the authorities were asked to review priorities between remaining projects already included in approved programmes for the purpose of revised later lists, and on 2nd May they were asked to supply revised estimates for further projects which they would hope to start in 1969-70.

The effect of the restrictions on capital spending on the universities' building programme was a reduction of £0.75m. in 1968-69 and £2.5m. in the following year. After taking the cut for 1968-69 into account the authorised total for the current year was £28.7m. As part of the continuing review of public expenditure programmes the Government decided later in 1968 that the rate of expansion of public expenditure in the university sector should be further reduced. The U.G.C. decided that the savings should be confined to capital expenditure which could be achieved by reducing the building work which would otherwise have been started in 1968-69 and reducing grant for equipment for teaching and research in the following year. At the beginning of August the Committee asked the universities as a preliminary step to hold up the start of all building projects to which they were not fully committed. After consultation with the universities the U.G.C. informed them on 26th September of revised programmes which reduced the total value of starts in the current year from £28.7m. to £18.7m. No building work in progress was stopped.

The flow of building bulletins in 1968 reflected current interest in comprehensive reorganisation and in secondary school design generally. Typical problems likely to confront local authorities when enlarging and adapting buildings for comprehensive use were discussed in the third bulletin (No. 40) in the series on new problems in school design. Another (No. 42) contained recommendations which would bring educational building consortia and the privately sponsored systems nearer to a situation in which building components could be fully interchanged. The variety of activities which make up the process of language learning were considered in another bulletin (No. 43) which discussed the design implications of these activities. This bulletin was published with an educational survey on language laboratories; the third in a series of surveys by the Department, it incorporated the views of experienced users of laboratories with the object of making easier a balanced assessment of the use and potential of this equipment.

Teachers

Once again the employment of teachers rose to new record levels; and during 1968 the Secretary of State (Mr. Edward Short) initiated a number of proposals to improve the professionalism and status of teachers.

The number of qualified teachers (including the full-time equivalent of part-timers) continued its steady increase to reach 316,900 in maintained schools in England and Wales at the beginning of 1968, an increase of 10,500 in twelve months. Although there was an increase in the school population of well over 200,000 during the year, a further improvement in the pupil : teacher ratio, from 24·0 in February 1967 to 23·8 in February 1968, was recorded. This compared with 24·5 four years earlier.

A new volume of education statistics showed that there were in October 1967 some 361,500 full-time teachers in all maintained schools and colleges. This represented an increase of some fifteen per cent in the five years from 1962; in the colleges of education the teaching force more than doubled. In the same five years the full-time equivalent of the part-time teaching force in the schools rose by 10,000, an increase of over 100 per cent.

The Government's policy is not only to increase the supply of teachers but to ensure as equitable a distribution as possible. For this purpose the Department operates the voluntary quota system which aims to secure for each authority a fair share of the total number of teachers available. The absence of such an arrangement would allow the more attractive areas to recruit at the expense of the less attractive. The quota for January 1968 was deliberately tightened to make the number of permits more nearly match the stock of teachers. The result was an improvement in distribution and a general levelling up, although some authorities still recruited more than their entitlement. During the year the policy of making the quota tight continued and there were by October few areas seriously short of staff.

Employment of off-quota teachers continued to grow, though more slowly than in some recent years. The spring advertising campaign to recruit married women teachers out of service was on a rather smaller scale than previously, in accordance with the advice received from L.E.A.s in 1966 that

the national campaigns were achieving their objective, and that it was likely that in future years local publicity only would be required in the shortage areas.

The L.E.A.s estimated that they expected to employ an additional 13,000 teachers in autumn 1969 compared with autumn 1968. The Government accepted this figure for the purpose of rate support grant. Although anxiety had been expressed about the ability of local authorities to finance sufficient posts in the autumn of 1969 to enable them to employ the large numbers of newly-trained teachers leaving the colleges, the prospect at the end of the year was that since the number of non-qualified teachers employed was likely to fall considerably in the period between, and provided that authorities continued to give priority to the employment of teachers, and particularly to giving first choice to those who were immobile, leaving the mobile ones to go to where the jobs were, it was not expected that newly-trained teachers would be unable to find posts.

Recruitment to teacher training was well up to expectations. With some 105,000 students in training in England and Wales, outside the universities, at the end of the year, it was evident that the Robbins Committee's estimate of 111,000 places by 1973-74 would be exceeded some years ahead of target. The Committee's 35,000 target intake for the colleges of education for 1972-73 had already been exceeded in 1967-68 when over 36,000 non-graduate students were admitted to initial training courses, and it was further exceeded in 1968-69 when the entry totalled nearly 39,000.

An investigation was made into the employment taken up by the 4,226 graduate students who successfully completed postgraduate teacher training courses in the summer of 1967. Information was obtained about 3,845 of these former students (91 per cent of the total). Of these, 3,314 (86 per cent) were teaching in England and Wales, a further 5·8 per cent teaching elsewhere, 3·7 per cent were engaged in voluntary work overseas or further study, and only 3·2 per cent were in other types of employment. A new advertising campaign was begun in December, to run for three months, aimed at increasing the number of well-qualified graduate teachers of science and mathematics.

The number of short in-service training courses for teachers organised by the Department continued to increase. Special consideration was given to the question of providing courses for teachers of science and mathematics. Two pilot courses were held for chemistry and physics teachers and these led to arrangements for eight six-week courses for science teachers to be held next summer.

The effect on the teacher supply position of raising the leaving age in 1972-73 was referred to in the announcement in January 1969. First effects would be felt in September 1973 when the new intake to the first form of secondary schools would not be counter-balanced by the usual exodus in July. Recent projections suggested that raising the age would create a need for about 15,000 additional teachers in the first year. Assuming the continued improvement of the supply position in the next few years the check in the process of improving staffing standards, which raising the leaving age must inevitably mean, should be no more than temporary.

An important step towards the removal of unqualified teachers from the schools was made in August by changes announced in Circular 15/68 which set out the arrangements under which persons could be employed as teachers. The recommendations derived from the report of a special working party set up by the Secretary of State in December 1967 to examine existing arrangements. The main change recommended by the working party and now incorporated into the Schools (Amendment) Regulations 1968, was the abolition of the categories of temporary teacher and occasional teacher after 31st August 1968. The temporary teacher category would be replaced by one of student teacher, restricted to persons genuinely seeking to become properly qualified. The occasional teacher would disappear, but there would be a new specialist class of instructor for arts or skills such as instrumental music, typing or swimming, where the necessary expertise was lacking among the qualified staff. The amending Regulations extended the probationary period for qualified but untrained teachers from one to two years. The Secretary of State also accepted another of the working party's recommendations that pre-war uncertificated and supplementary teachers should be allowed to continue teaching and be given qualified status on completing twenty years' service.

Discussions were initiated on a long-standing proposal for a teachers' general council. The Secretary of State, wishing to make progress towards unity within the teaching profession, asked the Parliamentary Under-Secretary to begin informal and exploratory talks with the unions. These began in July and were still in progress at the end of the year.

Authorities reviewed their committee arrangements in the light of the recommendations made in the report of the Maud Committee on the Management of Local Government and some proposals were made for such reorganisation and simplification of committee structure as was possible in advance of legislation. In August the Secretary of State welcomed proposals by authorities to reduce the size of their education committees. He was however concerned that the committees should continue to include representatives of outside interests and emphasised that teachers had a very important contribution to make ; he would prefer that the co-option of teachers was specifically provided for in the arrangements.

The Education (No. 2) Act 1968 received the Royal Assent on 3rd July. The Act followed a recommendation in the Report of the Study Group on the Government of Colleges of Education (the Weaver Report) designed to secure that the governing bodies of the colleges would not be constituted as sub-committees of the authority maintaining them. It covered also colleges of further education providing full-time courses and special schools, thus bringing the latter into line with county and voluntary schools. It required the maintaining authority to make by order an instrument and articles of government for each establishment. The appointed date for colleges of education and special schools announced in a circular in October would be 1st April 1969.

The Burnham Primary and Secondary Committee met in February to consider the report of a working party set up in 1967 to consider two matters remitted by the arbitrators. These were the unit total system relating to handicapped pupils and additional payments to be made to teachers in

schools of exceptional difficulty. The committee decided that the unit total count for pupils in special schools should be amended through a revised weighting system which effectively increased salaries for heads, allowances for deputy heads and the number of posts carrying allowances. The Committee also agreed to provide for the payment of £75 to qualified teachers and £60 to others employed in schools of exceptional difficulty. This scheme, operative from 1st April, was an initial attempt by the Committee to meet the recommendations contained in the Plowden Report, and the Secretary of State was asked to keep expenditure initially within £400,000 a year pending a review in the light of experience. The working party was reconvened to consider arrangements relating to the unit total system and also to consider the principles underlying the structure of the basic scale and the question of revision of the London allowance following the Report on London Weighting in the Civil Service by the National Board for Prices and Incomes.

The London allowance was again discussed by the Committee in July, and it was agreed that it should continue to be uniform over the whole area; but the questions of the date and amount of the allowances were referred, in the absence of agreement, to arbitration. An increase in the payment from £70 to £85, with effect from 1st November 1967, was provided for in the report of the arbitral body and put into effect. A similar increase for the teaching staff of colleges of education was recommended by the Pelham Committee and approved by the Secretary of State.

At its meeting of 18th October, the teachers' panel of the Primary and Secondary Committee also submitted a claim for revised salary scales to take effect from 1st April 1969. A claim for a revised basic scale of £900 by ten annual increments of £80 to £1,700 and certain increased allowances were included. In its reply at a meeting on 15th November, the Management Panel proposed a revised formula for calculating the unit totals of schools with the object of bringing the arrangements for above-scale posts in primary schools into a more acceptable relationship with those in secondary schools. The Committee agreed on these proposals but failed to agree on revised salary scale proposals by the management panel. Negotiations were still continuing at the end of the year.

The first report of the National Board for Prices and Incomes under the standing reference on university teachers' salaries was published on 18th December. The Secretary of State indicated that the Government accepted those recommendations which most directly affected the salary levels of individual members of staff. These will improve non-clinical teachers' salaries by an average of about 5 per cent from 1st October 1968. Other recommendations were left for further consideration in the light of the advice of the U.G.C. after their discussions with the interested parties.

Superannuation arrangements for university teachers were discussed in the report, published by the Department in January, of the working party established under the chairmanship of Sir George Maddex in 1964. The report described a possible scheme providing benefits directly related to terminal salary which the working party said was the best alternative likely to be available to the existing provision made, through insurance policies, under the Federated Superannuation System of Universities (F.S.S.U.).

Because of varying reservations by members, however, the working party was unable to make a clear recommendation in favour of either system.

The first part of the Department's survey of the curriculum and deployment of teachers in secondary schools was published in November. It provided detailed statistical information about the qualifications, training and teaching work of teachers together with the range of subjects taught and other related subjects. The survey consisted of an analysis of more than two million items of information collected in 1965 by some 13,600 teachers in 435 schools. This represented a five per cent sample of modern schools and a ten per cent of all other secondary schools. The survey confirmed the findings of the Dainton report and showed the tendency for graduate teachers to be concentrated in the grammar schools and in the upper forms of secondary schools, and the comparative emphasis by the grammar schools on science and foreign languages while English and mathematics were given very similar time by all the secondary schools.

Developments in Schools

The now familiar picture of an annual increase in the school population, rather more than matched by an increase in the teaching force, (with a small improvement in pupil/teacher ratios in secondary schools), was illustrated in the statistics of schools for 1968. The school population in England and Wales rose by 203,674 between January 1967 and January 1968 to a total of 8,190,745. In maintained schools there was an increase of 62,536 in the total number of secondary pupils to 2,895,387 and an increase of 151,323 in the number of primary pupils to 4,646,582. The average number of pupils per teacher in maintained primary and secondary schools were respectively 27·8 and 18·1 in 1968 compared with 27·8 and 18·2 a year earlier. The figures showed that the number of comprehensive schools increased by about 47 per cent to bring the total to over 740; and more pupils stayed on for an extra year of secondary education though wide difference persisted in the distribution of these pupils by region. Statistics of immigrant children revealed a 22 per cent increase in the total during the year ending January 1968.

Shortly after the end of the year the Secretary of State (Mr. Edward Short) drew attention to the wide range of research and development, involving schools and teachers all over the country and stimulated and helped by the Schools Council and by local teachers centres, in preparation for the raising of the school leaving age in 1972-73. Following the January 1968 statement on the financial position the Schools Council had announced some deferment of new projects, but indicated that it would do this without cutting back in any way upon the curriculum development projects which had already been started; indeed it hoped that some could be further reinforced. In particular, the programme to meet the needs of young school leavers remained of the greatest importance, and would continue to gather strength as planned.

With this in mind a survey among young people, parents and teachers was undertaken as part of the Council's programme of preparation for the raising of the school leaving age. The report was being printed when the Government announced its decision to postpone the raising of the school

leaving age, but the Schools Council decided to publish the report unchanged ; its urgency, the validity of its findings and their relevance to the planning of new curricula for the young school leaver, remained unaffected. It ranged widely over society as a whole and the values it holds. The educational objectives and attitudes of pupils, parents and teachers were considered, together with the relevance of school and its teaching to society. All this provided the Schools Council with evidence on which to further its existing work and plan its future programmes.

Much of the work of the Council during 1968 was concerned either specifically with the young school leaver or with curriculum and examinations which particularly affect him. In March a joint working party was set up to examine views and proposals concerning the sixth-form curriculum, starting from the evidence thrown up by the Dainton report that reform was necessary in order to reduce specialisation, to broaden the scope of study, and to delay the necessity of choice by individual pupils of subjects they would study in higher education. A Science Policy Study on occupational choice published in March had drawn attention to some of the factors which influence children in their choice of subjects to be studied at school and thereafter of their career. Determined to give proper weight to the interests of the majority of sixth-formers who do not intend to go on to the universities or higher education, the Council set up in September a second working party to consider the sixth-form curriculum, including its relationship to further education, industry and commerce.

The Schools Council's series of public "dialogues" on outstanding educational problems contributed a new stage to the debate on examinations with a pamphlet about G.C.E. "A" level and university entrance. Based on a case for radical reform by the Welsh Committee of the Council, the pamphlet discusses examinations—for what and by whom? The Welsh Committee's case, said the Council, added point to the familiar criticism that the present system examined little more than a pupil's ability to take examinations.

A major curriculum development project under way in 1968 aimed to give pupils a more meaningful, more creative grasp of the technological realities of contemporary life, as well as improving the flow of future scientific and technological manpower from the schools. A report was published on *Project Technology*, launched in 1967 to follow up the conclusions of a pilot study of the place of technology in schools, and a film *An Experiment in Teaching* was sponsored by the Department to illustrate the work being done through the Council's project and its relation to current industrial techniques. The value of community service in the school curriculum was emphasised in another working paper, published in March and commended to the schools for study and implementation by the Secretary of State (Mr. Edward Short).

The working party on the position of teachers in relation to the school meals service reported : its main recommendation was that Regulation 14 of the Provision of Milk and Meals Regulations 1945 should be amended so as to remove the power given to authorities to require teachers to supervise pupils taking dinners. Accepting the report, the Secretary of State (Mr. Edward Short) withdrew, as from 16th August, the authorities' power to

make the supervision of pupils during school meals compulsory. At the beginning of the 1968-69 school year Mr. Short stressed the importance of a wider pastoral responsibility by the schools for the children in their care and the professional responsibility of staff in supporting head teachers.

At the beginning of the summer term the charge for school meals was increased from 1s. to 1s. 6d. while any children in excess of three in a family became eligible for free school meals. The cost per meal was then estimated at 2s. 7d. and the increased charge, less the effect of the new concession, was estimated to save £14 million in the first full year. In November it was announced that the concession relating to the fourth and subsequent children was to be removed in April 1969, but free provision in cases of financial hardship would remain as before. From September free milk ceased to be provided for pupils at maintained secondary schools, but was retained at maintained primary schools and maintained special schools.

Plans to reorganise secondary education on comprehensive lines continued throughout the year. As in 1967 it was possible to report steady progress in approving schemes consistent with the principles of Circular 10/65 and suitable to local circumstances. At the beginning of 1968 a hundred authorities had schemes approved for the whole or part of their area, and schemes from a further 22 were under consideration. In the first six months of the year the number of authorities with approved schemes rose to 111. Eighty-five of the schemes cover the whole or greater part of an authority's area. By the end of the year the total number of approved schemes was 119, 93 for the whole or greater part of the authority's area; and schemes from 13 more authorities were under consideration.

At the opening of a new comprehensive school in June the Secretary of State (Mr. Edward Short) said that the task of the comprehensive school was to provide a wide range of courses and options for the entire ability range. This certainly meant preserving what is best in the grammar school tradition and making it more widely available. But a strictly academic education could be too narrow, even for naturally academic children, since their learning within the framework of a structured subject syllabus needed to be modified and humanised by a wider involvement. The comprehensive school will draw, said Mr. Short, on a wider range of teaching skills and qualifications. It will be more economic than in smaller schools, for example, to offer minority subjects, adequately staffed, particularly in the upper school. But throughout the school and throughout the ability range the influence of subject specialists can be increasingly felt in the basic subjects of the curriculum: mathematics, science, English, history, modern languages. Within the school children should meet as equal members of an open society. The methods used to group them for curricular and for social purposes should aim to reinforce and not reduce that equality; and the first generation of comprehensive schools has been much concerned to develop ways of doing so through houses, tutor groups and recreational interests, as well as in the teaching groups themselves. It was important that the concept should not be left out of the teaching situation. The presence of abler children could act as a stimulus to the rest as well as helping to establish standards; and for the abler children themselves there was merit, educational as well as social, in sharing in at any rate some joint projects.

Within the urban programme announced in October to help tackle the social problems of deprived communities, the educational priority in areas of special need was agreed by Ministers as being an expansion of nursery education. Most of the resources available to education in the first phase of the programme would be used to this end. Ministers emphasised that the urban programme was concerned with all areas of special need and not only the immigrant areas ; but it was known that areas of high immigrant population loomed large within the areas of special need.

Education authorities, with the co-operation of the Department, have attended to problems of immigrant populations as they arose. The need to provide roofs over heads for a growing school population has claimed first priority for school building allocations. But the additional allocations announced in 1968 for educational priority areas will benefit some areas of high immigrant population. The annual teacher quota has also made allowance for the needs of immigrant pupils ; in June it was announced that 1,921 teachers had been added to the quotas of those authorities with substantial numbers of these children and other requests would be considered. The addition to the previous quota for this purpose was 822. Details were announced in November of a further series of twelve short courses for teachers of English to immigrants, including pupils, students and adults.

The first report of the Public Schools Commission on independent boarding schools was published during the year. In June the Commission was reconstituted under the chairmanship of Professor D. V. Donnison to consider the integration of independent day schools, the participation of direct grant schools in the movement towards comprehensive reorganisation and the principle of central government grant to these schools. In July the Commission invited evidence on these matters.

Reports published during the year illustrated a very wide range of subject matter dealt with by the Department in the schools field alone. A committee appointed to consider the place of finger spelling and signing in the education of the deaf found no factual evidence of scientific validity which would enable it to recommend the use of manual media of communication in the education of the deaf, but noted at the same time the great weight of experienced opinion which favoured the use of these media for some deaf children. The Committee recommended further studies on this topic. A report on the training and employment of education psychologists made recommendations based on the view that their first priority should be the problems of school children with learning difficulties, though their specialist services should be available to others including pre-school children, school leavers, adolescents and young delinquents. Also in the field of special education, a committee of enquiry was set up to consider the organisation of education services for the blind and partially sighted and to make recommendations. There had been radical changes in this field since the last departmental enquiry in 1934. The number of children needing special education in schools for the blind had fallen in recent years while the proportion suffering from additional handicaps had increased. This brought into question the appropriateness of the present pattern of organisation. In December the Department published the report of a survey carried out between 1962 and 1965 of children in al

special schools and classes in England and Wales for the blind and partially sighted.

A revised pamphlet, issued early in 1968, aimed to describe those safety measures which were considered advisable in schools and dealt especially with developments which post-dated the first edition of 1948. Helping teachers to understand the problems of the modern adolescent was one function of a new *Handbook of Health Education*, an aspect emphasised by the Parliamentary Under-Secretary (Mr. Denis Howell) in a statement issued to mark its publication. Another publication described good practices in parent/teacher relations in primary schools, thereby implementing a recommendation of Plowden Report. The booklet, launched at a reception on 12th November attended by the Secretary of State (Mr. Edward Short) and the Minister of State (Miss Alice Bacon), was based on examples collected by H.M. Inspectors from schools in all parts of the country.

The report of the Committee on Research and Development in Modern Languages, published on 19th February, emphasised the importance of teaching and learning practical skills in foreign languages. It saw no reason why both adults and children should not achieve reasonable competence in a foreign language.

Developments in Further Education

The continuing demand for further education of all kinds, vocational and non-vocational, full-time and part-time, was reflected in the latest figures which showed that 1968 began with about 3,200,000 students attending grant-aided establishments of further education in England and Wales. This represented an increase of 3·3 per cent over the previous year and of 31 per cent since 1961. Within this framework of all-round growth the trend towards more full-time and sandwich courses continued. Within a single year enrolments for full-time courses showed an increase of 8·4 per cent, and for sandwich courses an even more pronounced increase of 19·8 per cent. There were at the beginning of 1968 nearly 222,000 full-time and sandwich students in further education establishments, and the figures showed that further education was the fastest growing sector of education in spite of the increasing tendency to stay on at school; and that within further education, the fastest growing sector was full-time advanced work.

Following the pattern of previous years more than 220 local advisory officers had been assigned by the middle of 1968 by L.E.A.s in England, Wales and Northern Ireland to provide young people with information and advice on full-time degree and higher national diploma courses as part of the Further Education Information Service, details of which are publicised regularly in the Department's quarterly journal *On Course*. The Department also issued during the year a folder for sixth formers describing the nature and scope of the service and how to use it. Among its other functions *On Course* continued to keep industry and the technical colleges in touch with developments affecting education and training. Liaison between the training boards and the educational service at national, regional and local levels was now well-established, but the Industrial Training Act 1964 and the subsequent establishment of industrial training boards had enhanced the

importance of contact at every level in contributing to its successful implementation. Attention was drawn to the introduction or development of courses by a series of *On Course* bulletins designed to explain their nature and the variety available. The first in January was on the *Certificate in Office Studies*, which was followed by *Computer Education in the Technical Colleges* in May, the *Diploma in Management Studies* in June and *National Awards in Business Studies* in January 1969.

The Secretary of State (Mr. Edward Short) paid tribute to the impact of the Council for National Academic Awards on the development of degree courses, which during the year reached 173 in more than 40 colleges. At the beginning of the 1967-68 session there were 10,687 C.N.A.A. students of whom 4,700 were in their first year. The corresponding figures for the previous session were 7,109 and 3,567, and the Council expected some 20,000 students by the early 'seventies. The C.N.A.A. degree was firmly established in business studies in 12 colleges with 1,250 students and a degree in librarianship and information science was offered for the first time. In a decade a handful of students on national certificates and diploma courses in business studies had grown to 26,000. More recently there had been a steady growth in the provision of modern language courses especially to meet the needs of industry and commerce, and in the last year or two a significant development in computer studies.

Schemes for the establishment of polytechnics in their areas were being submitted by the local education authorities concerned towards the end of 1967 and throughout 1968. At the end of the year local arrangements were in hand for three polytechnics at Hatfield, Sheffield and Sunderland to become operational in January 1969 and to be designated as such. The essential features of the new polytechnics which distinguished them from the universities were described by the Secretary of State (Mr. Edward Short) as being that they would offer full-time and sandwich degree courses, but also full-time and sandwich sub-degree courses as well as part-time courses at similar levels, including H.N.C. and a range of higher technician courses. There must also be courses requiring a more modest entry qualification but designed for people with a degree of maturity. The polytechnics would be comprehensive educational organisations, the tip of an educational pyramid within the further education system.

The correspondence colleges' own scheme for accreditation took another step towards recognition with the Secretary of State's agreement in August to nominate the chairman and five other independent members of the proposed Accreditation Council.

Addressing members of the Library Association in September the Minister of State (Miss Jennie Lee) said that it was hoped that the Open University's charter would be granted in the spring of 1969 and that the University would be launched, with programmes on radio and television, in January 1971. At the end of the year preparations were going ahead on that basis. A degree pattern was announced in March by the University's Planning Committee within which the University staff would be free to develop courses and organise teaching methods. The Committee emphasised that an experimental approach was essential because there were so many unknown

factors and because the greatest possible benefit should be derived from the opportunities for change. It regarded the systematic provision of correspondence courses and a network of viewing/listening centres as an essential requirement for success. Provision should also be made for co-operation with the L.E.A.s, the extramural departments of the universities and the W.E.A. in the initiation and provision of courses. The Committee proposed that no formal qualification for admission should be required and that degrees would be obtained by accumulating credits which would be of equal value. Six would be required for an ordinary degree and eight for an honours degree, and each credit would represent the successful completion of a component course involving generally one year's work. Students should be required to obtain two credits in first year 'foundation' courses, but the maximum flexibility should be provided for in building up the credit score; an interdisciplinary approach should be encouraged by permitting as many permutations of courses as would be practicable across the four main subject groups. Nor should students be restricted as to the order in which they took courses.

The appointment of Professor Walter Perry, Vice-Principal of the University of Edinburgh, as Vice-Chancellor Designate of the Open University was announced on 5th June. Appointment of a Secretary-designate followed in July and of certain directors of studies and heads of departments in November.

Students : Pressures and Problems

The number of students in higher education continued to grow and there was wide discussion of the role of the student, in particular in relation to the administration of university and college affairs. Wider scope was envisaged by the Secretary of State (Mr. Edward Short) for the involvement of students in local community activities to help reduce their sense of isolation; and the Minister of State (Mrs. Shirley Williams), reviewing the outcome of discussions between the National Union of Students and the Committee of Vice-Chancellors and Principals and with the local authority associations, concluded that we were moving, probably more quickly than any other country, to satisfy reasonable demands for greater participation of the student body.

At the beginning of the academic year 1967-68 there were more than 180,000 students in advanced courses in further education—twice as many as in 1958, even though the earlier figure included and the later excluded the former Colleges of Advanced Technology (now in the university system); there were 95,000 students in initial training courses in colleges of education compared with 27,000 ten years before—an increase of over 250 per cent; and the universities' population in Britain more than doubled from 85,000 at the start of the academic year 1957-58 to 185,000 ten years later. The post-war leap in the birth rate, the growing tendency for girls and boys to remain voluntarily at school and the ability of a larger proportion of the larger age group to qualify for higher education combined to exert a steadily increasing pressure on the education service. In round figures the last decade witnessed an almost two-and-a-half fold increase to about half

a million in the autumn term 1968 in the number of students in higher education in England and Wales together with the universities in Scotland.

In his review of public expenditure in January 1968 the Prime Minister said that following the next review of students' awards, the increase in September would cover only half the rise in the cost of living since the last review in 1965. The Secretary of State (Mr. Gordon Walker) commented that this had to be judged against Britain's generous system of student support ; at the time when reductions had to be made over a wide range of educational expenditure, this was not an unreasonable sacrifice. Education Ministers met a deputation of the National Union of Students and the Scottish Union of Students representatives at their request on 2nd February to discuss various aspects of student support. The Government stood by its decision to halve in total any increase recommended by the Advisory Panel but decided to adjust the income scale on which parental contribution was based to relieve some of the lower residual income group families from the obligation to pay or to reduce their contribution. Those with a residual income of above £1,000 would pay a little more, and the consequent net saving would make possible an improvement of grant to certain categories ; and the payment in full of dependants' and other allowances. The increased rates were announced on 8th May, immediately before publication of the report of the Advisory Panel.

For the first time meetings were held between the Committee of Vice-Chancellors and the N.U.S. on the subject of university government. In a statement issued jointly in October, the Committee and the Union agreed that the form of the academic community and the role of the students within it should be modified in response to rapid social change and recognition of the greater responsibilities of students. Their discussion covered areas of operation in which students should participate, for example student welfare ; those in which their views should properly be taken into account, such as curriculum and courses ; and those such as staff appointments where student presence would be inappropriate but where opportunity should exist for their views on general principles to be considered. The statement set out some considerations affecting participation including the obligations it placed upon students. Questions of discipline were discussed at length, and it was agreed that individual universities should review their arrangements to promote understanding with their own students and to decide within what areas it would be appropriate for disciplinary responsibility to be delegated to the student body. Both sides welcomed the Government's acceptance of the Latey Committee recommendation to reduce the legal age of majority to 18, and both recognised its implications for the universities' responsibilities to their students and their internal rules and organisation. The statement concluded by pointing out that freedom of discussion was one of the foundations on which the universities were built ; the right to freedom of speech must not be exercised in ways which infringed the rights and freedoms of others. Later, similar discussions were held between the local authority associations and the N.U.S. and culminated in the issue of a joint statement by the parties in November concerning student participation in administration and college government.

Prominent among the proponents of curricular and other reform in 1968 were students in some art colleges. The critical views of some students

were shared by some of the staff. Grievances manifested themselves in sit-ins and clashes with the authorities at a few colleges and more prolonged friction ensued at Hornsey and Guildford. Early in July a general invitation for views on matters relating to the general structure of art and design education in colleges and schools of art was issued by the Secretary of State's National Advisory Council on Art Education which together with the National Council of Diplomas in Art and Design set up a joint committee to examine the subject. By the end of the year more than a hundred submissions from students and staff of colleges, from organisations and from individuals had been received. The enquiry was regarded as urgent but the committee gave first priority to the need for careful review of the very wide-ranging structure of art education and it was recognised that this would take some time to complete.

Science and Manpower Policy

The Department's expenditure on science, mainly in support of the Research Councils, continued to rise. Special priority was given to the Natural Environment Research Council and to the Office for Scientific and Technical Information. Each Research Council makes its own decisions on the detailed use of its grant-in-aid: in the main it is devoted to research work in a Council's own institutes or units, in universities and elsewhere, and to the support of individual research workers.

The Social Science Research Council, whose grant-in-aid in its initial years has risen more sharply than that of the other councils, does not yet conduct its own research but its current estimates provide for an increase in its expenditure in support of work in other institutions by 50 per cent compared with the 1967-68 estimates. The number of studentships and fellowships awarded in 1968 compared with the previous year also went up by over 50 per cent.

The Science Research Council receives in grant-in-aid over half of the total science votes. In 1968-69 the share of its grant devoted to international scientific organisations rose disproportionately as a result of devaluation. At home S.R.C. grants included help to the Cambridge and Manchester radio astronomers who discovered and measured "pulsars", previously unknown kinds of radio sources.

During the year the Council for Scientific Policy advised the Government on the proposal that the United Kingdom should join in a major European high energy nuclear physics project, to construct a proton synchrotron of 300 GeV energy. The Council supported the scientific value of the project while proposing certain conditions. After very careful consideration of all the factors involved the Government decided against participation. The Secretary of State met the Council to explain the Government's reasons and emphasised that the Government did not question its scientific judgment.

Publication in 1968 of a number of reports on the education, supply and use of qualified manpower completed a series of studies initiated by the Council for Scientific Policy. The reports have made a significant contribution to current debate on the age and intensity of specialisation in British schools, its effect on the supply of scientifically qualified manpower and the distribution and use of that manpower. As a result of these and other

investigations—for example, the joint study on sixth form work which was begun during the year by the Standing Conference on University Entrance and the Schools Council—the universities are now increasingly aware of the powerful influence wielded by their requirements on secondary school studies.

The flow of candidates in science and technology into higher education was the subject of a report published in February. It was the work of a group under the chairmanship of Dr. F. S. Dainton which was set up following a report in 1965 by the Universities Central Council on Admissions on a shortage of suitable candidates for university places in pure science and technology. The Dainton Report was followed in September by the report of another working group, under the chairmanship of Professor Michael Swann, which was appointed to investigate imbalance in the flow into employment of graduate scientists, engineers and technologists. Its mandate arose from a request by the C.S.P. to the Committee on Manpower Resources for Science and Technology for advice on how far such considerations should influence decisions on the resources to be devoted to those areas of science on which the Council had to advise.

The Dainton Report provided evidence that specialisation in science was tending to become less popular among school pupils and urged changes designed to avoid premature and irreversible decisions to specialise. It contained proposals for broadening the pattern of sixth form education in England and Wales and reshaping the entrance requirements of universities. Evidence of a serious lack of balance in the supply of qualified manpower was provided by the Swann Report, which suggested that not enough well-qualified scientists and technologists were entering industry or the schools. It strongly supported the recommendation of the Dainton Report for a more broadly based and flexible education, and proposed changes in postgraduate training and awards policy and means of overcoming the shortage of science and mathematics teachers.

British specialisation in science and technology was, said the Swann Report, thrown into sharp relief by comparison with the United States. In a report published early in October, Mr. M. C. McCarthy suggested that while British education in these fields was highly specialised and concentrated in time, American education was generalised and spread throughout the graduate's working life. His report questioned the balance between specialists and generalists and suggested that adaptation to future needs in Britain require a move towards a more general scientific or technological education, with specialism grafted on as and when appropriate.

The findings of these reports were strongly reinforced by those of other studies published in 1968. In particular the Report of the Working Group on Molecular Biology drew attention to the artificial barriers between disciplines and the failure of the system to exploit usefully and effectively the talents of its most highly qualified graduates. It regarded a broad based approach as the first essential for improvement in recruitment, teaching and research at this level, and emphasised that this could be achieved only by the integration of basic disciplines. The Council for Scientific Policy attached great importance to the findings of this report, especially about the maldistribution and variable quality of talent, which they considered applied

equally to other branches of science. They urged further consideration for methods of concentrating resources for scientific research.

The accent on a broader approach to scientific education was echoed in the Report of the Royal Commission on Medical Education which recommended a more flexible approach to the education and training of doctors. The Commission, under the chairmanship of Professor Lord Todd, was appointed to review medical education in Britain and to advise the Government on the principles on which development should be based.

Through its own reports and those of the working groups it set up, the Committee on Manpower Resources shed new light on fundamental manpower problems and prompted new lines of thinking. The Committee itself, however, pointed to the fact that it made little sense to confine policy to scientists and technologists without regard to other kinds of highly qualified manpower. In September the Secretary of State announced that the Committee was to be dissolved and replaced by a more broadly based body which would deal with problems of all highly qualified manpower. The function of the new committee (which was expected, like its predecessor, to reflect both industrial and academic points of view) will be to advise the Government through the Secretary of State.

PART TWO

THE YEAR'S EVENTS

SECTION I

THE SCHOOLS (ENGLAND AND WALES)

Introduction

1. All matters relating directly to the schools of England and Wales are dealt with in this section of the report. The school population, the supply of schools, school building policy, teacher supply in the maintained sector are reviewed first, followed by a progress report on secondary reorganisation, notes on the urban programme and nursery education and on the education of immigrant children. Then follows information on schools not maintained by the local education authorities beginning with a note on the work of the Public Schools Commission. Further paragraphs deal in turn with the curriculum and examinations, the education of handicapped children, developments since the Plowden Report, school health, meals and milk.

1. Maintained Schools

a. POPULATION

Numbers

2. The total maintained school population continued to increase. In January 1968 there were 7,541,969 full-time pupils on the registers of maintained primary and secondary schools (other than nursery and special schools) in England and Wales, 213,859 more than in January 1967.

TABLE 1.—*Numbers of full-time pupils on the registers of maintained primary and secondary schools (other than nursery and special schools)*

Year (January)	Number of Pupils (000)			
	Infants	Juniors	Seniors	Total
1966	1,830·1	2,528·2	2,824·9	7,183·2
1967	1,887·9	2,602·0	2,838·2	7,328·1
1968	1,969·6	2,685·7	2,895·0	7,550·4

3. The proportions of 15-, 16- and 17-year-old pupils in maintained schools were as follows:—

TABLE 2.—*Numbers and proportions of 15, 16 and 17-year-old pupils*

Year (January)	Age 15		Age 16		Age 17	
	Number (000)	Percent- age of age group	Number (000)	Percent- age of age group	Number (000)	Percent- age of age group
1963... ..	300·4	36·1	143·0	18·6	57·1	9·0
1964... ..	383·6	51·3	160·8	19·0	75·7	9·8
1965... ..	371·7	52·8	153·0	20·4	85·7	10·3
1966... ..	368·3	54·6	155·8	22·0	83·0	11·0
1967... ..	372·2	56·8	159·9	23·6	86·6	12·2
1968... ..	389·5	59·8	171·0	25·9	90·8	13·3

4. The total number of pupils in sixth forms increased by 10,082 to 191,833.

5. The number of pupils in senior classes of all age schools was 2,362 (5,305 in 1967). The total number of such schools fell from 71 to 32 and the proportion of pupils aged 13 attending them from 0·2 to 0·1 per cent.

Size of Classes

6. In January 1968 there were 246,950 junior and senior classes, of which 21·9 per cent, containing 26·1 per cent of pupils, were oversize (22·3 and 26·8 in January 1967).

b. SUPPLY OF SCHOOLS

School Building

7. During the year 736 primary and 101 secondary schools were completed. With the extra places made available by alteration or extension of existing schools these provided places for 254,224 primary and 110,510 secondary pupils. School building projects were under construction at the end of the year to provide a further 199,830 primary and 227,295 secondary school places.

8. The numbers of school places to be provided in major and minor school building projects started in recent years were as follows:—

TABLE 3.—*Places started in major and minor school building projects*

Calendar year				Primary places	Secondary places	Total
1964	...	...	...	104,000	105,000	209,000
1965	...	...	...	148,500	92,500	241,000
1966	...	...	...	209,500	96,500	306,000
1967	...	...	...	253,500	125,500	379,000
1968	...	...	...	232,500	138,000	370,500

Establishment of New Schools, Significant Enlargements, Changes in Character and Discontinuance of Schools*

9. The number of proposals for the establishment of new schools, significant enlargements, changes in character and the discontinuance of existing schools approved by the Secretary of State during the year under Section 13 of the Education Act 1944, as amended, was as follows:—

TABLE 4.—*Proposals for new schools, significant enlargements and changes in character approved under Section 13 of the Education Act, 1944, as amended.*

	New schools		Significant enlargements		Significant changes in character		Total
	Primary	Secondary	Primary	Secondary	Primary	Secondary	
County	435	309	28	39	42	53	906
Voluntary:							
Church of England ...	48	18	6	8	5	2	87
Roman Catholic ...	73	22	10	7	19	18	149
Church in Wales ...	—	—	2	—	—	—	2
Methodist ...	—	—	—	—	1	—	1
Undenominational ...	1	2	—	2	—	—	5
Total Voluntary ...	122	42	18	17	25	20	244
Total all schools ...	557	351	46	56	67	73	1150

TABLE 5.—*Proposals for the discontinuance of schools approved under Section 13 of the Education Act, 1944, as amended*

	Primary	Secondary	Total
County	180	234	414
Voluntary:			
Church of England ...	93	8	101
Roman Catholic ...	5	6	11
Church in Wales ...	10	—	10
Methodist ...	2	—	2
Undenominational ...	—	2	2
Total Voluntary ...	110	16	126
Total all schools ...	290	250	540

10. These figures include proposals for the discontinuance of 118 schools in rural areas of which 18 were secondary schools. Of the remaining 100 schools (35 of which were to be replaced by new schools in the same area), 32 were county, 51 Church of England, 5 Roman Catholic, 2 Methodist, 9 Church in Wales and 1 undenominational.

11. Two voluntary schools closed on the initiative of the managers under Section 14 of the Education Act, 1944.

Voluntary Schools

12. In January 1968 there were 9,586 voluntary schools and departments in England and Wales, of which 5,268 were aided, 156 special agreement, and 4,162 controlled.

* See paragraph 16 below.

13. Table 6 shows voluntary school projects included in the 1968-69 building programme and the accommodation brought into use during 1968. In addition, it is estimated that more than 21,005 places were provided at voluntary schools by minor works.

TABLE 6.—*Voluntary school building*

	Projects authorised to start in 1968-69						Accommodation brought into use during 1968					
	Church of England (including Church in Wales)		Roman Catholic		Other voluntary bodies		Church of England (including Church in Wales)		Roman Catholic		Other voluntary bodies	
	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places	Pro- jects	Places
Aided ...	30	7,830	69	19,130	1	280	43	11,550	95	27,696	2	420
Special Agreement	1	120	6	1,500	—	—	—	—	7	2,710	—	—
Controlled	24	5,775	—	—	6	2,060	46	11,190	—	—	8	2,570
TOTALS ...	55	13,725	75	20,630	7	2,340	89	22,740	102	30,406	10	2,990

14. Payments of grants during 1968 amounted to £15,095,097 and brought the total since 1945 to £106,364,849, of which £76,753,520 had been paid at the rate of 75 per cent authorised by the Education Act 1959 and £11,209,192 at the rate of 80 per cent authorised by the Education Act 1967. These grants represent the amount claimed and paid up to the end of 1968 on major and minor building projects, together with grants on minor alterations and repairs.

TABLE 7.—*Grants and loan advances during 1968*

	Church of England schools (including Church in Wales)		Roman Catholic schools		Other voluntary schools	
	Grants	Loan Advances	Grants	Loan Advances	Grants	Loan Advances
	£	£	£	£	£	£
Alterations and re- pairs at aided and special agreement schools	2,384,244	71,119	2,163,323	240,895	368,626	27,150
Transferred and sub- stituted schools ...	1,589,360	275,500	1,644,754	304,670	35,376	—
Schools for displaced pupils	35,046	—	780,650	173,243	—	—
Secondary schools to match primary schools (1959 Act, Section 1(2)) ...	364,951	145,000	2,300,266	628,900	—	—
Special Agreement Schools	—	—	—	19,000	—	—
New places under the Education Act 1967	521,067	3,500	2,885,802	479,866	16,396	—
Significant enlarge- ments of existing schools	—	—	5,236	—	—	—
TOTALS ...	4,894,668	495,119	9,780,031	1,846,574	420,398	27,150

15. 155 new loan agreements were concluded during the year for loans amounting to £2,255,134. Loan advances of £2,368,843 during the year brought the total advances to £22,231,712.

The Education Act 1968

16. The Education Act 1968 received the Royal Assent on 10th April.* Circular 12/68 issued on 30th April explained that the purpose of the Act was to clarify and amend the law relating to changes in the character and size of schools. Proposals for significant changes of this sort, while no longer being treated in law as equivalent to opening a new school or closing an existing one, would require the same procedure of public notices. Under the Act, it falls to the Secretary of State to determine which changes in character and size are to be treated as significant. The principles which he would follow in exercising this power were under consideration at the end of the year following consultations with the local authority and teachers' associations. The Act also amended the law regarding the submission of specifications and plans of new schools and their compliance with prescribed standards in cases where the use of existing buildings is proposed.

School Building Policy

17. The review of the major building programmes for 1968–69 and 1969–70, projected in 1967,† was carried out. Revised lists of major projects authorised to start in these years were drawn up in accordance with the policy defined in Circulars 6/68 and 13/68 (see paragraph 18 below) and announced by June and November respectively. The value of each revised annual programme was £88.5m. Secondary projects authorised, although designed mainly to accommodate extra pupils, contributed directly to the progress of secondary reorganisation and in some cases to the improvement of substandard buildings. Decisions on secondary projects for a few authorities were deferred pending clarification of their intentions regarding reorganisation. About four-fifths of the total sum allocated was for the provision of new school places. In each year, £7m. was allocated specifically to help authorities whose plans for secondary reorganisation were seriously affected by the postponement of the raising of the school leaving age and to supplement the provision for educational priority areas (see paragraph 19).

18. Circular 13/68, issued in July, announced a new three-stage procedure for major building programmes as described in Section VI, paragraphs 40–42. Besides outlining the arrangements for the revised 1969–70 programme, the Circular invited authorities' bids by October for the design list for that year and for the preliminary list. Work in compiling these was in progress at the end of the year.

19. The allocations to local authorities of the additional £16m. for school building in 1968–70 in educational priority areas‡ were announced in April. Most of the 51 authorities which benefited were in the Metropolitan, Midland, North East and North West regions of England and in Wales. The major projects selected were mainly for the replacement of old primary school buildings. The allocations for minor works envisaged

* See *Education and Science in 1967*, Section I, paragraph 41.

† *ibid.*, paragraphs 17 and 19.

‡ *ibid.*, paragraph 20.

improvements to existing buildings which in some cases would also help the local community. An urban programme of expenditure on education, housing, health and welfare in areas of deprivation and social need similar to that of educational priority areas was announced in July by the Secretary of State for the Home Department, as described in paragraph 38 below.

20. Authorities were notified in November of their share of the normal minor works programme for 1969–70. The resources available for county and voluntary schools amounted £27.5m. Additional minor works totalling £0.8m. were authorised for the winter months of 1968–69 under special arrangements designed to reduce unemployment in the development areas of Wales and the Northern Region of England.

c. SUPPLY OF TEACHERS*

Qualified Teachers

21. The teaching force continued to grow rapidly. The output into teaching of the colleges of education corresponded to their intake in 1965, the year in which it expanded most. In the year ending February 1968, 298,071 full-time qualified teachers were in service, 7,875 more than a year earlier. The February 1969 figure, at 310,700 was 12,629 higher. Including the full-time equivalent of part-timers, qualified teachers have increased in number by nearly 13 per cent during the last five years. Table 8 summarises the figures.

22. The Department commissioned the Government Social Survey to conduct a comprehensive enquiry into the wastage of qualified men teachers during the academic year 1968–69.

TABLE 8.—*Qualified teachers (i)*

1st February	1965	1966	1967	1968	1969(ii)
Full-timers					
Men	119,696	121,804	124,405	127,515	131,200
Women	160,496	162,338	165,791	170,556	179,500
Total	280,192	284,142	290,196	298,071	310,700
Part-timers (full-time equivalent)	11,900	14,272	16,206	18,874	19,400
Total	292,092	298,414	306,402	316,945	330,100
Increase during previous year ...	5,499	6,322	7,988	10,543	13,100
Pupil/teacher ratio	24.3	24.1	23.9	23.8	not available

(i) Including former uncertificated and supplementary teachers whose service is protected.
(ii) Provisional.

Graduate Teachers

23. Full-time graduate teachers increased in number in March 1967 over the previous year, but declined slightly as a percentage of the total

* All figures in this section relate to teachers in maintained primary and secondary schools (other than nursery and special schools).

full-time teaching force because of the very rapid increase in non-graduate teachers. In 1968 there was a quickening interest by graduates in training to teach (see Section II, paragraph 64). Progress is summarised in Table 9.

TABLE 9.—*Full-time qualified graduate teachers*

31st March				1964	1965	1966(i)	1967(ii)
Men	...	...	...	37,077	37,470	37,810	37,909
Women	...	...	...	21,245	21,337	21,682	22,219
TOTAL	...	...	...	58,322	58,807	59,492	60,128

- (i) The figures for 1966 supersede those previously published.
- (ii) Provisional.

24. The Department's press advertising campaign was concentrated on recruiting graduates in science and mathematics. It was supplemented by meetings on science teaching for students at several universities, organised by faculties of science and by university appointments boards, with some help from the Department. A new booklet *The Scientist as Teacher* was prepared.*

Probation

25. Administrative memorandum 10/68, issued in August, announced that the Schools (Amendment) Regulations 1968† made changes from 1st September in the arrangements for teachers' probation. The probationary period remained one year for teachers who had satisfactorily completed an approved course of training in the United Kingdom, but was extended to two years for untrained teachers qualified by the holding of special approved qualifications (notably degrees). Teachers in regular part-time service would be required to serve a probationary period approved in each case by the Secretary of State. The lengthening of the probationary period for untrained teachers had been recommended in the Plowden, and other, reports.

Unqualified Teachers

26. The report of the working party of representatives of the teachers' and local authorities' associations set up in December 1967‡ was ratified in July by all the associations represented and accepted by the Secretary of State. The report recommended abolition by 31st August 1970 of the categories of temporary teacher and occasional teacher and transitional measures for the two preceding years. These categories would be replaced by those of student teacher (that is, a person intending to proceed to training or qualifications acceptable for qualified teacher status) and instructor (that is, a person who is not a qualified teacher but gives instruction in specialist arts or skills). Student teachers would not be in charge of a class nor counted against a school's establishment of teachers. Instructors should not be employed if a qualified teacher were available to give the necessary

* Obtainable free from Department of Education and Science, Room 102, Curzon Street, London, W.1.
 † S.I. 1968 No. 1281, H.M.S.O., 9d.
 ‡ *Education and Science in 1967*, Section I, paragraph 26.

instruction and, in any event, should not be employed on more general duties in the schools. Statutory effect was given to these changes from 1st September by the Schools (Amendment) Regulations 1968. The working party also recommended that ex-uncertificated teachers and supplementary teachers who had taught for twenty or more years should be accepted as qualified teachers. All these changes were announced in circular 15/68, issued in August, which replaced circular 6/59. Table 10 shows how the number of unqualified teachers has changed.

TABLE 10.—*Unqualified teachers*

1st February	1965	1966	1967	1968	1969(i)
Full-time temporary teachers					
Men	1,549	1,658	1,681	1,194	730
Women	2,947	3,650	3,824	3,077	1,810
Total	4,496	5,308	5,505	4,271	2,540
Full-time occasional teachers					
Men	168	184	188	152	150
Women	2,098	2,305	2,328	2,054	1,550
Total	2,266	2,489	2,516	2,206	1,700
Full-time equivalent of part-time unqualified teachers	2,878	3,153	3,586	3,396	2,140
TOTAL	9,640	10,950	11,607	9,873	6,380

(i) Provisional. Student teachers are]included with temporary teachers, and ‘instructors’ with occasional teachers, for the purposes of comparison with earlier years.

Distribution of Teachers

27. Along with the improvement in staffing standards mentioned in paragraph 21 went a further improvement in distribution. The 1968-69 quota operates from October 1968 to the end of the school year, and not, as in previous years, only from 1st February. The quota was again kept tight. The result was a further improvement of recruitment in the shortage areas. In October 1968 very few authorities fell seriously below their quota and most of those that did hoped to be much closer to the quota by January 1969. Half of the authorities were within plus or minus one per cent. of their quota.

28. To help the process of matching teachers and posts, lists of authorities which still had appreciable numbers of vacancies were circulated at intervals during the summer to colleges of education, university departments of education, local education authorities and university appointments boards.

29. At the same time it proved possible to increase the allocation of quota teachers to authorities with immigrant problems. 2,000 were allocated as compared with 800 last year. 640 were allocated to authorities with educational priority schools and 237 to Welsh authorities to meet a recommendation about Welsh language teaching made by the Central Advisory Council (Wales) in their report published in January.*

* *Primary Education in Wales*, H.M.S.O., £1 12s. 6d.

The Return of Married Women

30. As shown in Table 11, the flow of married women returning to full or part-time service continued, but at a rather lower rate. Nearly three-quarters of the returning teachers found employment in primary schools. A further press advertising campaign designed to attract married women back to service was conducted early in 1968. In the year ending January 1968, a total of 156 new nursery classes had been set up under circular 8/60 and its addenda, which make provision for the establishment of such classes where this will release a significant number of married women to return to teaching.

TABLE 11.—*Married, qualified women teachers returning after a break of at least one year*

Year ended 1st February	1965	1966	1967	1968	1969(i)
Full-time	3,435	3,441	3,403	3,822	3,670
Part-time	2,996	3,784	3,966	4,552	3,020
Total	6,431	7,225	7,369	8,374	6,690
Graduates	888	986	1,129	1,177	950
Non-graduates	5,543	6,239	6,240	7,197	5,740
To primary schools	4,666	5,250	5,310	6,071	4,800
To secondary schools	1,765	1,975	2,059	2,303	1,890

(i) Provisional.

d. THE ORGANISATION OF SECONDARY EDUCATION

31. Further substantial progress was made with the reorganisation of secondary education along comprehensive lines. By the end of the year 11 of the 163 L.E.A.s in England and Wales had comprehensive systems either implemented or approved. 92 authorities had schemes implemented or approved covering the whole or greater part of their areas :—

Anglesey	Cornwall	Hastings
Barking	Coventry	Havering
Barnet	Croydon	Herefordshire
Barnsley	Cumberland	Hertfordshire
Barrow in Furness	Darlington	Hounslow
Bedfordshire	Denbighshire	Huddersfield
Berkshire	Devon	Huntingdon and
Birkenhead	Dewsbury	Peterborough
Blackburn	Doncaster	Isles of Scilly
Blackpool	Dudley	Isle of Wight
Bradford	Eastbourne	Kingston-upon-Hull
Brent	Enfield	Leicestershire
Bristol	Flintshire	Lincoln County
Bromley	Gateshead	Borough
Burnley	Great Yarmouth	Lincolnshire,
Cardiff	Grimsby	Holland
Cardiganshire	Haringey	Lincolnshire,
Carlisle	Hartlepool	Lindsey

Luton	Oxford County	Sunderland
Manchester	Borough	Sussex East
Merioneth	Oxfordshire	Sussex West
Merthyr Tydfil	Preston	Tynemouth
Merton	Redbridge	Wakefield
Montgomeryshire	Rochdale	Wallasey
Newcastle upon Tyne	Rotherham	Waltham Forest
Newham	St. Helens	Warwickshire
Newport	Sheffield	West Bromwich
Northampton	Solihull	Worcestershire
County Borough	Somerset	York County
Northumberland	Southampton	Borough
Norwich	South Shields	Yorkshire, East
Nottinghamshire	Stoke on Trent	Riding
Oldham	Suffolk East	Yorkshire, West
	Suffolk West	Riding

32. A further 27 authorities had schemes implemented or approved for part of their areas:—

Breconshire	Gloucestershire	Pembrokeshire
Caernarvonsire	Hampshire	Radnorshire
Cambridgeshire	Kent	Shropshire
Carmarthenshire	Lancashire	Staffordshire
Cheshire	Lincolnshire,	Surrey
Derbyshire	Kesteven	Swansea
Dorset	Liverpool	Teesside
Ealing	London (I.L.E.A.)	Wiltshire
Essex	Monmouthshire	
Glamorgan	Northamptonshire	

33. 13 authorities had submitted schemes which were being considered in the Department:—

Brighton	Exeter	Sutton
Burton upon Trent	Halifax	Wigan
Canterbury	Ipswich	Yorkshire North
Chester	Nottingham	Riding
Durham	Southport	

34. Seven authorities had been asked by the Secretary of State to reconsider their submitted schemes and a further six had withdrawn their submitted schemes for reappraisal. Most of the remaining authorities were understood to be preparing schemes but eight—Bolton, Bournemouth, Bury, Kingston-upon-Thames, Richmond-upon-Thames, Rutland, Westmorland and Worcester County Borough—had formally declined to do so.

35. The most popular form of organisation continued to be the orthodox all-through comprehensive school taking pupils of 11–18 years of age. Middle school schemes straddling the primary and secondary stages and schemes of four or five year comprehensive schools with separate sixth form or junior colleges were also well represented. Two-tier systems were also in evidence and included some of a permanent character, with automatic transfer of

pupils, but for the most part formed interim steps towards ultimate schemes of a more fully comprehensive character.

36. All the schemes covered county schools and in some cases included voluntary schools. Where this was not so, discussions about the future of the voluntary schools were proceeding. The question of the participation of the direct grant schools in the movement towards comprehensive reorganisation was referred in October 1967 to the Public Schools Commission whose report is awaited.

37. In terms of the actual numbers of comprehensive schools in operation the progress which took place between January 1967 and January 1968 is shown in Table 12.

TABLE 12.—*Comprehensive schools in the maintained sector*

	January 1967	January 1968
Number of maintained secondary schools ...	5,729	5,576
Number of comprehensive schools (included above).	509 (9%)	748 (13.4%)
Number of pupils in maintained secondary schools.	2,832,914	2,895,387
Number of pupils in comprehensive schools (included above).	406,686 (14.4%)	606,326 (20.9%)

e. THE URBAN PROGRAMME AND NURSERY EDUCATION

38. Circular 19/68, issued jointly on 4th October 1968 by the Home Office, the Ministry of Health and the Department, announced the first phase of the Government's plans to bring aid to deprived urban areas with the help of additional building programmes and special grant aid. 24 local education authorities (including the I.L.E.A. in respect of 11 inner London boroughs) were selected on grounds of overcrowded housing or because they had more than six per cent of immigrants on the school roll. They were invited to submit proposals for the provision, expansion or improvement of nursery schools and classes, day nurseries and children's homes, in the period 1968–70. Discussions were begun with the local authority associations about the future scope of the programme, which was expected to cost £20–£25m. in the period 1968–72.

Nursery Education

39. The bids invited from authorities under the urban programme provided the basis for a planned expansion of nursery education additional to normal school building programmes and free from the constraints imposed on new nursery provision by Circular 8/60 (and Addenda 1 and 2). Advice on the planning of nursery schools and classes was made available to authorities benefiting under the programme, and the Secretary of State was prepared to consider applications for increases in their teacher quota. He also agreed to consider whether existing restrictions on nursery provision could be relaxed in any way in areas not covered by the urban programme.

f. THE EDUCATION OF IMMIGRANTS

40. The total number of immigrant pupils in maintained primary and secondary schools rose from 184,000 in January 1967 (2·5 per cent of the total school population) to 220,000 in January 1968 (2·9 per cent of the total school population).

41. As in previous years the Department increased the teacher quotas of a number of authorities and, in allocating capital resources for minor building projects, gave special consideration to areas with a high proportion of immigrant pupils. Nevertheless a number of authorities had difficulty in providing sufficient school places for newly arrived immigrant pupils because of the lack of warning of their arrival in the area. This was particularly acute during the early months of the year as a result of the influx of Kenyan Asians and in some areas there were insufficient places to enable parents who had children of statutory school age to start them at school at the beginning of the Easter term.

42. In May, the Secretary of State and Miss Bacon, the Minister of State with special responsibilities for the education of immigrants, visited schools with a high proportion of immigrant pupils to see developments at first-hand.

Race Relations Act

43. The Race Relations Act (which came into force in November) made it unlawful to discriminate on the ground of colour, race or ethnic or national origins in the provision, inter alia, of facilities for education, instruction or training. Certain exceptions were made in the case of charities and acts done for charitable purposes. Speaking during the Report Stage in the House of Lords, the Lord Chancellor said that, in the Government's view, there was nothing in the Department's Circular 7/65 on dispersal policy which contravened the provisions of the Bill.

2. Schools not maintained by local authorities

a. PUBLIC SCHOOLS COMMISSION

44. The first report of the Public Schools Commission under the chairmanship of Sir John Newsom, dealing with independent boarding schools, was published in two parts: Volume I (the main report) on 23rd July* and Volume II (the appendices) on 16th October.† The report analysed the situation of the public schools in relation to the maintained system and assembled information about boarding education not previously available. Various approaches to the Commission's terms of reference were discussed leading to a proposed and costed scheme of integration with the maintained system. The proposals were aimed at making the schools socially less divisive, educationally more comprehensive, and thus able to satisfy some of the need for boarding education which the Commission foresaw.

45. The main recommendation was that independent boarding schools suitable and willing to be integrated with the national system should be given every encouragement to play a part. All such schools should make at least half their places available to pupils in need of boarding education and most should admit pupils of a wide range of ability. Aided status, possibly in association with a central authority, should be available to schools wishing to come within the maintained system. Integrated schools would need to adjust some aspects of their style of life to the wider social and educational background of their pupils. Pupils in need of boarding education for academic or social reasons would receive free tuition (up to the average cost of a place in a maintained school) together with assistance (based on an income scale) for the balance of the fee, the cost to be distributed among L.E.A.s on a pooled basis. Applications for boarding places would be considered by regional consortia of L.E.A.s, with policy guidance from a central boarding schools corporation. The agreement both of the parents and of the head-teacher would be required before a child could be admitted to a particular school.

46. Three members of the Commission did not sign the report and gave their reasons in a note of dissent published with the report. One member who signed the report entered a note of reservation.

47. The Commission was reconstituted in June 1968 under the chairmanship of Professor Donnison and turned its attention to independent day schools and direct grant grammar schools.‡

b. DIRECT GRANT SCHOOLS

48. The reduction from £52 to £32 in the capitation grant to direct grant grammar schools, referred to in the 1967 Report,§ came into effect from 1st August 1968. The grant for sixth form pupils remained at £84.

* H.M.S.O., £1 2s. 6d.

† H.M.S.O., £2 5s. 0d.

‡ See *Education and Science in 1967*, Section I, paragraphs 50–51.

§ *ibid.*, paragraph 48.

49. The Trinity School of John Whitgift, Croydon, relinquished direct grant with effect from 1st August 1968 and became an independent school.

C. INDEPENDENT SCHOOLS

Standards in Independent Schools

50. The 1967 Report* referred to the Secretary of State's decision to apply the standards required for recognition as efficient to registered boarding schools. In March 1968 a letter was sent to all unrecognised independent schools drawing attention to this decision and explaining the measures to be taken to implement it. Following visits by H.M. Inspectors to all independent boarding schools not yet recognised as efficient, the Department will advise the schools how to reach the required standards. These visits began in the autumn term 1968.

Recognised Efficient Schools

51. Ten additional schools were recognised as efficient under Rules 16, including one former direct grant school which relinquished grant. Recognition was withdrawn from six schools. In all 1,456 schools were recognised at the end of the year.

Registration of Independent Schools

52. At the end of 1968 the register of independent schools contained 1,503 finally registered schools besides those recognised as efficient and 38 provisionally registered schools of which 29 were new schools which had come into existence since January 1968. During the year 30 new schools were added to the register and the particulars of 134 were removed on closure or change of status.

Notices of Complaint and Appeals

53. During 1968 the Secretary of State served 16 notices of complaint making a total of 167 since the introduction of Part III of the Education Act 1944 in 1957. The complaints related to deficiencies in premises, accommodation and instruction as well as an unsuitable proprietor (one school); deficiencies in premises, accommodation and instruction (eight schools); deficiencies in premises and instruction (one school); deficiencies in accommodation and instruction (one school); and unsuitable teachers (five schools).

54. Two notices of complaint issued in 1967 led to appeals to Independent Schools Tribunals in 1968. In one of these cases, which concerned an unsuitable teacher and unsuitable proprietors, the tribunal ordered that the school be struck off the register unless the teacher was dismissed from the school and the proprietors disposed of their interest in the school by 31st August 1968 and that one of the proprietors be disqualified from being a proprietor of an independent school. In the other case, which concerned inefficient or unsuitable instruction combined with deficiencies in premises and accommodation, the hearing of the appeal was deferred while the local health authority considered the proprietor's application for registration under

* See *Education and Science in 1967*, Section I, paragraph 52.

the Nursery and Child Minders' Regulation Act 1948. This matter had not been resolved by the end of the year.

55. Of the 16 notices of complaint issued in 1968 one which concerned deficiencies in premises, accommodation and instruction was referred to a tribunal which met in July but adjourned until there had been a further inspection of the school. This took place in October but the tribunal hearing was not resumed before the end of the year.

56. The 1967 Report* referred to an appeal to a tribunal against a notice of complaint issued in 1967 in which the tribunal ordered the school to meet certain requirements by 20th January 1968. The requirements were met.

57. The 1967 Report also referred to an appeal by a proprietor to the High Court against a tribunal's findings that the appellant be disqualified from being the proprietor of an independent school. The Secretary of State also appealed to the High Court against the same tribunal's decision not to disqualify the appellant from being a teacher in any school. Both appeals were dismissed.

58. One school failed to meet within the specified time the requirements of an order of a tribunal which met in January 1967 to hear an appeal against a notice served the previous year. The school was struck off the register with effect from 15th February 1968 but was still open at the end of the year. The proprietor was prosecuted and fined on two occasions for conducting an independent school which was not a registered school and further proceedings were authorised.

59. During 1968 the Secretary of State dealt with eleven schools where the time limit had expired for satisfying the requirements of a notice of complaint against which there had been no appeal. The results were as follows:—

<i>Grounds of complaint</i>	<i>Action taken by school</i>	<i>Action taken by Secretary of State</i>
Inefficient or unsuitable instruction combined with deficiencies in premises and accommodation (eight schools)	Closed voluntarily (two schools) Requirements being met (one school)	Orders disqualifying premises and striking schools off register. (three schools) Order striking school off register (one school) Action under consideration at end of year (one school)
Inefficient or unsuitable instruction combined with deficiencies in premises (one school)		Order striking school off register
Inefficient or unsuitable instruction (one school)	Closed voluntarily	
Deficiencies in premises (one school)		Order disqualifying premises and striking school off register.

* See *Education and Science in 1967*, Section I, paragraph 58.

60. In the five cases involving unsuitable teachers that were the subject of notices of complaint during the year all the schools concerned met the requirements within the specified time. The Secretary of State disqualified four persons from being teachers in any school. In the fifth case the teacher left the school just before the notice of complaint was served.

3. The Schools Council for the Curriculum and Examinations

61. During 1968 important changes in the constitution and structure of the Council as well as in the membership of the Council and its committees were made following the report of the constitutional review working party which had been set up by the Governing Council in December 1966. The principal changes were the establishment of a programme committee, with a teacher majority, for the determination of priorities within the available resources and oversight of work programmes, and the reorganisation of the committees dealing with secondary school examinations to ensure closer links between the C.S.E. and G.C.E. "O" level examinations and between examinations and curriculum questions.

62. The Council took an active part in the debate which continues, on the nature and purpose of sixth form education. In June, the Council and the Standing Conference on University Entrance set up a joint working party to examine views and proposals concerning the sixth form curriculum under the chairmanship of Professor Clifford Butler, Professor of Physics at Imperial College, and a member of several of the Council's committees. The working party was concerned not only with proposals emanating from the Council and the universities but was open to receive fresh proposals from anyone with an interest in this subject. The joint working party worked closely with a second Schools Council working party set up at about the same time to consider the interests of the increasing proportion of sixth formers not going on to higher education, and the relationship of the curriculum to the requirements of further education, industry and commerce.

63. At the suggestion of the Council, the G.C.E. and C.S.E. boards gave some thought to the possibility of bringing the dates of their respective examinations closer together. The G.C.E. boards produced an experimental timetable for 1969 and a degree of uniformity was achieved in subject dates among six of the eight G.C.E. boards. Two of the C.S.E. boards subsequently decided to fix the dates of their examinations to coincide with the G.C.E. timetable. Once again the number of C.S.E. examination candidates rose; in 1968 there were about 208,000 candidates compared with 176,000 in 1967.

64. The Council continued to concentrate its efforts on five main curriculum research and development programmes—English studies, a programme for the young school leaver, primary education, sixth form studies and a programme of projects concerned with the special needs of Wales. New research and development projects covering a wide range of subjects were commissioned during the year.

65. Publications continued to be the chief medium for the Council's relationships with teachers in schools, colleges and universities, with administrators and with parents. They included curriculum and examination bulletins, field studies and working papers designed to stimulate experimental work, discussion and argument. The Council issued an informal account* of its activities which described in detail the organisation of the Council and its purposes for the benefit of a wide readership. To strengthen and maintain

* *The first three years, 1964–67, H.M.S.O., 3s. 6d.*

relations with its collaborators, the Council also published the first number of an illustrated newsletter, *Dialogue*,* to be sent each term to teachers in every school and to other interested parties.

66. Among other Schools Council publications of general interest were Enquiry 1, *Young school leavers*,† which reported the results of an enquiry carried out by the Government Social Survey at the request of the Secretary of State for Education and Science, as part of the Council's preparation for the raising of the school leaving age and *Educational research in Wales*,‡ aimed at bringing current research findings more conveniently to the attention of teachers. The Council's teaching guide for the introduction of decimal currency and the adoption of metric measures, entitled *Change for a pound*,§ seemed likely to find use outside as well as in schools.

67. The Council's publications for 1968 also included Examination Bulletin No. 18: *The certificate of secondary education: the place of the personal topic—history*,|| a second pamphlet in the series *Humanities for the young school-leaver* entitled *An approach through English*,¶ together with three Working Papers: No. 17 *Community service and the curriculum*,** No. 18 *Technology and the schools*,†† and No. 20 *Sixth form examining methods*.‡‡ In addition the Council issued a printed memorandum, *Practical support for curriculum change*,§§ suggesting steps that should be taken immediately in schools and elsewhere if plans for the raising of the school-leaving age are fully to succeed.

* From the Schools Council, 160, Great Portland Street, London, W.1.

† H.M.S.O., 15s. 0d.

‡ H.M.S.O., 5s. 0d.

§ H.M.S.O., 4s. 0d.

|| H.M.S.O., 3s. 0d.

¶ H.M.S.O., 2s. 6d.

** H.M.S.O., 4s. 0d.

†† H.M.S.O., 5s. 0d.

‡‡ H.M.S.O., 3s. 6d.

§§ Schools Council, free.

4. Handicapped Pupils, Special Educational Treatment, and Special Schools

Building Progress

68. During 1968 62 major special school building projects, including clinics, were started at a total value of £4.2m. and projects valued at £5.3m. were completed. At the end of the year 66 projects valued at £5.5 were under construction.

69. In April the special schools and school clinics major building programme for 1970–71 was announced, consisting of 60 major projects with a total value of just over £5m. Places for educationally subnormal children accounted for nearly half this sum, and places for maladjusted children for about a fifth: allowance was also made in this allocation for the increased number of physically handicapped children expected to survive infancy, particularly those suffering from *spina bifida*.

70. L.E.A.s were invited in October, in Circular 20/68, to submit proposals for the subsequent programme, and were asked in their submissions to pay particular attention to the continuing need for additional places for educationally subnormal and maladjusted children and also those suffering from *spina bifida*. The importance of regional consultation was emphasised.

Blind and Partially Sighted Pupils

71. In January 1968 there were 1,025 pupils in special schools for the blind, 1,539 pupils in special schools for the partially sighted, and 211 pupils in special schools catering for both blind and partially sighted pupils. In addition there were 189 pupils at the further education establishments for the blind.

72. Because of the steady decrease over several years in the number of children needing special education in schools for the blind, and the increase in the proportion of such children suffering from additional handicaps, it became necessary to consider whether the existing pattern of organisation of education for the visually handicapped needed modification. There were also more fundamental questions relating to possible developments in educational practice on which there was no general agreement. The Secretary of State therefore appointed a committee of enquiry to consider the organisation of education services for the blind and partially sighted and to make recommendations. The chairman of the committee is Professor Vernon, former Professor of Psychology at Reading University. The membership includes doctors, teachers and administrators with a wide variety of experience in various aspects of the education of children with defective vision. The first meeting of the committee was held on 30th October 1968.

73. During the year discussions were held with the Royal National Institute for the Blind, the College of Teachers of the Blind and the University of Birmingham about the establishment at the University of a research centre for blind education. It is hoped that the centre will start work in the autumn of 1969. Among its most important aims will be research into the learning problems and processes of blind children, the in-service training of teachers and the encouragement and control of experiments in the schools for the blind.

74. The report of a survey of children in all the special schools and classes for the blind and partially sighted in England and Wales carried out by a medical officer of the Department between 1962 and 1965 was published.*

Deaf and Partially Hearing Pupils

75. The number of children ascertained as having impaired hearing has been rising over the past decade, both in absolute terms and as a proportion of the total school population. Although some of this rise is due to a real increase in incidence (e.g. children born during the rubella epidemics of 1962-64) part of it may be ascribed to better and earlier diagnosis and assessment—it is noteworthy that the number of young children under five years old in special schools for the deaf has more than doubled over this period. The trend towards providing more education for very young children and the big expansion in peripatetic services (one of the functions of which is to give guidance on speech and language training to the parents of children too young to attend school) may help to account for the increase of children now being educated as partially hearing in ordinary schools, either in ordinary classes or in partially hearing units, as compared with those in schools for the deaf.

76. The increasing demand for teachers of the deaf to staff partially hearing units and the peripatetic service has caused continued shortage of qualified teachers. However, attendance at courses run by Manchester and London Universities had increased, and an additional training course at The Lady Spencer-Churchill College of Education at Wheatley near Oxford is to be started in September 1969. The number of teachers annually securing the special qualifications to teach deaf children which stood at 90 in 1967 is expected to increase to about 150 by 1970.

77. During the year the committee, under the chairmanship of Professor Lewis, which had been considering the value of finger spelling and signing in the education of the deaf, produced its report.† The committee's recommendations, which included suggestions for further research and investigation, are being studied in the Department.

Physically Handicapped and Delicate Pupils

78. In planning new special schools for physically handicapped children particular attention was paid to the needs of severely handicapped children, including those who are immobile, except in wheelchairs, and possibly also incontinent. As a result of the improvement of neonatal surgery, a greater number of children with *spina bifida* survive to school age, and their care makes heavy demands on the special schools to which many of them will go. A boarding special school is maintained by the Shaftesbury Society at Coney Hill for children with *spina bifida* and another has just been completed by the Sheffield Local Education Authority. A third (day and boarding) is planned by the Liverpool Local Education Authority. But boarding schools of this kind will cater only for a proportion of such children and current building programmes are also giving priority to bringing

* *Blind and Partially Sighted Children*, D.E.S. Education Survey 4, H.M.S.O., 6s.

† *The Education of Deaf Children: the possible place of finger spelling and signing*, H.M.S.O., 12s. 6d.

special schools for the physically handicapped to a condition in which they can cater for them satisfactorily.

Educationally Subnormal Pupils

79. Provision in special schools for educationally subnormal children continued to increase. A further 3,150 places will be provided under the building programme announced for 1970-71.

Severely Subnormal Children

80. Under Section 57 of the Education Act 1944 these mentally handicapped children become the responsibility of local health authorities who provide training centres in which most of the children are cared for. In November the Prime Minister announced the Government's acceptance in principle that responsibility for the education of mentally handicapped children in England and Wales should be transferred to the education service. Legislation would be prepared; many matters would have to be worked out in consultation with the appropriate bodies.

Maladjusted Children

81. The emphasis in recent building programmes on the needs of maladjusted children enabled 4,315 such children to be placed in special schools in January 1968, of whom 2,694 were in residential schools, compared with 3,865 (2,414 in residential schools) a year earlier. There is still however a shortage of places in maintained special schools, and many children (about 2,500 in January, 1968) are placed by L.E.A.s in independent schools; some of these cater specifically for maladjusted pupils and others are able, because the classes are small, to absorb a small number of disturbed pupils. In addition, in January 1968 there were 159 special classes for maladjusted children in ordinary schools with 620 children attending full-time and a further 1,073 part-time. About 600 places will be provided under the building programme announced for 1970-71.

82. At the beginning of 1968 there were 367 child guidance clinics run by L.E.A.s, of which 160 were in full-time use. These clinics are staffed by psychiatrists (usually consultants holding appointments with the Regional Hospital Board), educational psychologists (who also have duties in the School Psychological Service), and psychiatric social workers. Though there was some improvement in staffing during the year the numbers of staff continue to fall far short of requirements. For an account of the report of the Working Party on Educational Psychologists see paragraph 92.

Children with Speech Defects

83. Until recently there were only two special schools, both in the south of England, for children with severe speech defects such as receptive aphasia. The pressure on places was acute; moreover because of cultural and linguistic differences these schools were not ideally suited to deal with speech handicapped children from the north of England. In 1968 the Ewing Special School for children in the age range 3½-11 years opened in Manchester. Initially it provided places for twelve boarding pupils but it is hoped in time to double this number.

Use of Independent Schools for Handicapped Children

84. L.E.A.s made an increasing use of independent schools for the provision of special educational treatment: in January 1968, some 3,850 handicapped pupils were being maintained by education authorities in such schools (3,700 in January 1967). About 850 (650 in 1968), including nearly 650 in 25 schools catering wholly or mainly for handicapped children, were in unrecognised schools, with approval granted by the Department under Circular 4/61.

Training of Teachers in Special Educational Treatment

85. The number of full-time one-year courses for teachers of children requiring special educational treatment was 38 in 1968-69 providing for 562 students (38 and 540 in 1967-68). In addition four three-year part-time courses were available for teachers unable to take advantage of the full-time courses. If successfully completed, these part-time courses provide a qualification similar to that given by the one-year full-time courses. There were also 8 one-term full-time courses providing for 98 students during the year.

Child-care Staff in Boarding Special Schools

86. Authorities and non-maintained special schools were informed in Administrative Memorandum 1/68 of a scheme worked out with the Central Training Council in Child Care and the Home Office for awarding a Declaration of Recognition of Experience in the Residential Care of children to older experienced officers engaged in this work or its administration. The purpose of the scheme was to accord recognition to staff who, because of their age and experience, were less likely to undertake training leading to the award of the Central Training Council's Certificate in the Residential Care of Children. The scheme applied to staff at boarding special schools and homes and further education establishments for handicapped children and to independent schools catering wholly or mainly for handicapped children, as well as to a variety of establishments for which the Home Office is responsible.

5. Central Advisory Council for Education (England)

87. There was during the year a number of developments arising out of, or having a bearing on, recommendations contained in the Report of the Central Advisory Council for Education (England) *Children and their Primary Schools*.^{*} Several of these were concerned with the special problems of educational priority areas for which the Report recommended a policy of "positive discrimination". They included (jointly with the Home Office and Ministry of Health) the announcement of an urban aid programme (see paragraph 38), the decision by the Burnham Committee to set aside a sum of money for additional salary payments to teachers working in schools of exceptional difficulty (see Sect. VI, para. 11), the reservation in the teacher quota calculations of a number of teachers for work in educational priority areas (see paragraph 29), and the announcement that the Department and the Social Science Research Council had made a grant of £175,000 for a three year research project on such areas (see Sect VI, para. 76). The project, based on Oxford University, is aimed at mobilising local initiative from L.E.A.s, head teachers and others for a programme of action and research based on schools in selected areas. In November the Department published Education Survey Number 5—*Parent/Teacher Relations in Primary Schools*[†] in response to the Central Advisory Council's recommendation that they should issue a booklet containing examples of good parent-teacher relations.

^{*} H.M.S.O., £1 5s. 0d.: see also *Education and Science in 1967*, Section I, paragraphs 94–98.

[†] H.M.S.O., 6s. 6d.

6. General

a. LICENCES FOR CHILDREN IN ENTERTAINMENT

88. Five licences were issued in 1968 under Section 22 of the Children and Young Persons Act 1933. Four of them varied licences already issued and one resulted from an appeal against a decision of a local education authority not to issue a licence.

89. In October 1968 the Home Secretary made an Order to bring Part II of the Children and Young Persons Act 1963 into operation on 3rd March 1969 except that for the purposes of applying for and granting licences under Section 37 of that Act the operative date was 2nd December 1968. Part II of the 1963 Act substitutes for Section 22 of the Children and Young Persons Act 1933 a new statutory code governing performances by children for which the Home Office is responsible.

b. THE SCHOOL HEALTH SERVICE

90. The decision, announced in last year's Report,* to discontinue the publication of the biennial report of the Chief Medical Officer of the Department of Education and Science was revoked, and *The Health of the School Child* will be published in 1969 with a detailed account of the School Health Service, including the School Dental Service for the years 1966, 1967 and 1968.

91. In August, the School Health Service Regulations, 1959 (S.I. 1959, No. 363) were amended† to add orthoptists to the list of professions supplementary to medicine who must be registered as a condition of employment by L.E.A.s in the school health service.

c. PSYCHOLOGISTS IN EDUCATION SERVICES

92. The report of the working party under the chairmanship of Professor Summerfield, set up to consider the field of work of educational psychologists, the qualifications and training needed, and the number required, was published in September.‡ The working party recommended that L.E.A.s should plan school psychological and child guidance services on the basis of one educational psychologist for 10,000 school children—a doubling of the present numbers. Collaboration with teachers, parents and others concerned with children is essential to the work of educational psychologists. They should be centred administratively on the education departments of local authorities but their services should be available to other departments and organisations who need them. The working party suggested ways of expanding the existing training courses, recommended new courses for psychology graduates without teaching experience, and proposed an in-service training

* *Education and Science in 1967*, Section I, paragraph 100.

† *The School Health Service (Amendment) Regulations, 1968*, S.I. 1968, No. 1252, H.M.S.O., 4d.

‡ *Psychologists in Education Services*, H.M.S.O., £2 5s. 0d.

scheme to be run by local authorities who had well-developed child guidance services. The Department invited comments from a number of organisations in this field and had these under consideration at the end of the year.

d. HEALTH EDUCATION

93. A revised version of the Department's handbook on health education* was published in July. It is designed to help teachers, and intending teachers, to equip themselves to give children at school the training which they need in matters of health. It is, like earlier versions, wide-ranging in its subject-matter, but pays particular attention to problems which are becoming more important for young people, amongst them the abuse of drugs.

e. THE SCHOOL MEALS SERVICE

94. In April, the charge for the school meal, which had been 1s since 1957, was increased to 1s. 6d. Corresponding changes were made in the income scale used by L.E.A.s to decide which children are eligible for free meals, and regulations† were made to provide free meals without any test of parent's income for children in excess of three in each family. The Government announced in November that this concession to large families would be withdrawn in April 1969, with an estimated saving annually of about £4m.

95. These changes, and the publicity campaign about free school meals which was launched in the autumn of 1967, had a marked effect on the uptake of school meals, both paid for and free. Information collected from a large sample of L.E.A.s in March 1968, showed that at least 100,000 more free meals were then being served than before the campaign. The effect of the changes in April were investigated by a special census taken on a day in May. Figures from this census, and from those taken as usual in September 1967 and September 1968, are tabulated below. The immediate effects of the changes in April was to reduce the total number of meals served, and increase the proportion served free to nearly twice the figure of the previous autumn. In September 1968 the total number of meals served had returned to last year's figure, and the proportion of free meals had further increased.

TABLE 13.—*School meals served to pupils in maintained schools in England and Wales*

Date	Number of meals served (000)			Percentage of pupils present taking meals	Percentage of meals served free
	On payment	Free	Total		
September 1967 ...	4,443	404	4,847	69·5	8·3
May 1968 ...	3,963	764	4,727	66·6	16·2
September 1968 ...	4,179	841	5,020	70·1	16·8

* *A Handbook of Health Education*, H.M.S.O., 14s. 6d.

† *The Provision of Milk and Meals Amending Regulations, 1968*, S.I. 1968, No. 534, H.M.S.O., 6d.

96. Free meals provided under the new concession were not separately recorded but it is estimated that in September 1968 between 250,000 and 300,000 children were having free meals, because they were members of large families, who would not have had them on grounds of financial hardship.

97. The number of self-contained kitchens used by L.E.A.s to provide school meals increased from 16,369 to 17,344, and the number of dining rooms and centres receiving container meals decreased from 11,864 to 10,999. There are still a small number of schools or departments which have no school meals facilities—161 in place of 173 a year earlier. All these changes follow trends which have been established for several years.

98. Following the withdrawal of teachers from the school meals service in certain selected areas in the autumn term of 1967 the Secretary of State set up a working party representing the interests of teachers and L.E.A.s “to consider and make recommendations on the position of teachers in relation to all aspects of the school meals service”. In its report, the working party pointed out that the head teacher must retain overall responsibility for the conduct of the school meal, just as he did for all that took place in and about the school, and noted that there was a professional responsibility on the teaching staff as a whole to support the head teacher in fulfilling those responsibilities. It also noted that it was important to the teacher, whether head or assistant, that he should be able to enjoy a proper and satisfactory break in which he could relax and rest and, if he wished, leave the school premises. In the light of these considerations the working party recommended that the power given by regulations* to L.E.A.s to require teachers to supervise pupils taking dinners should be removed, and offered suggestions on the scale of supervisory assistance that might be required for different kinds of schools. The report was ratified by the associations represented on the working party and accepted by the Secretary of State, and amending regulations† were made in August.

99. A hundred school meals organisers and catering officers in colleges of education attended a conference on “Food for the Young Adult” organised by the Department at the Southlands College of Education from 3rd–6th September. The Department’s two senior catering advisers, with responsibility respectively for school meals and for catering in colleges of education acted as joint chairmen. The conference combined lectures, and discussions, and included sessions on the training of catering staff; kitchen planning and equipment; nutrition; policy and communications; new catering; and staff relations.

f. MILK IN SCHOOLS SCHEME

100. Under the Public Expenditure and Receipts Act 1968, from September free milk ceased to be available for pupils at maintained secondary schools, or senior pupils at maintained all-age schools. It continued to be provided for pupils at maintained primary schools and at all special schools. The

* Regulation 14 of *The Provision of Milk and Meals Regulations 1945*, S.R.O. 1945, No. 698, H.M.S.O., 3d

† *The Provision of Milk and Meals (Amendment No. 2) Regulations 1968*, S.I. 1968, No. 1251, H.M.S.O., 4d.

powers of L.E.A.'s under Section 78(2) of the Education Act 1944 to provide milk by arrangement to pupils at non-maintained schools were similarly restricted so as to apply only to junior pupils. The estimated financial saving in England and Wales was £4.5m. in a full year.

101. The principal statistics of the provision of free school milk, as set out in Table 14, clearly show the very different attitudes of primary and secondary school children in recent years towards school milk, and the effect of withdrawing free school milk from secondary school children (apart from those at special schools, whether maintained or not).

TABLE 14.—*Children taking free milk on a day in the autumn term*

	1967		1968	
	Number (000)	Percentage of those present	Number (000)	Percentage of those present
Maintained schools				
Primary ⁽¹⁾	1,573	96.1	1,581	95.6
Junior ⁽¹⁾	2,360	91.1	2,445	89.8
Secondary ⁽¹⁾	1,614	58.3	29 ⁽²⁾	91.0 ⁽²⁾
Total	5,547	79.3	4,055	— ⁽⁴⁾
Non-maintained schools ⁽¹⁾	423	78.1	126 ⁽³⁾	— ⁽⁴⁾
Total	5,970	79.2	4,184	— ⁽⁴⁾

Notes:
 (1) Including special schools of appropriate category.
 (2) Special schools only.
 (3) Special schools, and junior pupils only.
 (4) Percentages omitted as misleading.

SECTION II

FURTHER EDUCATION (ENGLAND AND WALES)

Introduction

1. This section of the report, like the preceding one, is confined to England and Wales. It deals with developments in the provision of education and recreation for those over school age (other than in the universities which are dealt with in the next section). In three main parts, the section deals first with major developments affecting the technical colleges and other establishments of further education ; secondly, with teacher training in the colleges and departments of education ; and finally, with adult education, public libraries, the youth service and sport.

1. Technical Education

a. MAJOR DEVELOPMENTS

The New Polytechnics

2. The Department's Report for 1967 referred* to the Secretary of State's Parliamentary Statement in April of that year on his proposals for the establishment of 30 polytechnics in England and Wales in accordance with the Government's policy for the development of higher education within the further education system which had been announced in May 1966 in the White Paper *A Plan for Polytechnics and Other Colleges*.†

3. Except in the case of the polytechnic proposed for north Lancashire, the L.E.A.s concerned had been invited to submit schemes for the establishment of polytechnics in their areas, and by the end of 1968 24 of these schemes had been formally submitted for the Secretary of State's consideration. Two of these had been referred back for reconsideration: in 21 cases the Secretary of State had approved the scheme in principle, subject to some amendment of the draft instrument and articles of government, and had indicated that he would be prepared to designate the proposed polytechnic in due course when the governing body had been set up, the Director appointed and other preliminary action taken to enable the new institution to be brought into operation ; the remaining scheme was submitted in December 1968 and was still under consideration at the end of the year.

4. In 6 of the 21 cases the authorities concerned had completed the revision of the draft instrument and articles of government ; these had received the Secretary of State's formal approval and they had been made by order of the L.E.A. At the end of the year arrangements were being made

* *Education and Science in 1967*, Section II, paragraphs 3-6.

† Cmnd. 3006, H.M.S.O., 1s. 6d.

locally for the first three polytechnics—those at Hatfield, Sheffield and Sunderland—to come into operation in January 1969 and to be designated as such. About another 12 were expected to be established by September 1969.

Accreditation Scheme for Correspondence Colleges

5. A draft scheme for the accreditation of correspondence colleges* was submitted to the Secretary of State in April by the two sponsoring bodies, the Association of British Correspondence Colleges and the Cleaver-Hume Group. After studying the draft scheme and taking account of the comments submitted by other interested bodies the Secretary of State announced in August that he was prepared to nominate the chairman and five other independent members of the proposed Accreditation Council. The scheme provides for another five members to be drawn from correspondence colleges and for the Secretary of State and the Secretary of State for Scotland each to appoint an assessor to the Council.

6. The scheme follows the recommendations made in the Gurr Report† published in 1966. It provides for the Council to be an independent body incorporated under the Companies Acts as a non-profit making company limited by guarantee. Its primary duties are the accrediting of colleges which conform to the standards it sets, raising generally the standards of postal tuition and protecting the interests of both the students and the colleges. The Company was duly incorporated in September.

Government of Colleges

7. The Education Bill introduced in October 1967‡ received the Royal Assent on 3rd July under the title the Education (No. 2) Act 1968 (see paragraph 79). Circular 22/68 explained its provisions and, so far as establishments of further education are concerned, promised further guidance on the government and conduct of such establishments (in place of that given in Circular 7/59) and on the question of the date or dates to be appointed for bringing the Act into force.

Computer Education

8. Further development of short intensive courses for systems analysts took place during the year. During the summer term 19 colleges provided them, and this number had grown to 21 by the autumn. Of these, all but one used the syllabus and other course material devised by the National Computing Centre in consultation with the further education service. Altogether the colleges ran 42 systems analyst courses during the year. 487 students from technical colleges and 154 from industrial training establishments entered the examination for systems analysts administered by the British Computer Society and the National Computing Centre ; of these 407 and 123 respectively were successful.

* *Education and Science in 1967*, Section II, paragraph 7.

† *Report of the Committee on Accreditation of Correspondence Colleges*, obtainable from the Association of British Correspondence Colleges Ltd., 4-7 Chiswell Street, London, E.C.1 or the Cleaver-Hume Group, Aldermaston Court, Aldermaston, Berks.

‡ *Education and Science in 1967*, Section II, paragraph 8.

9. As a further development in the training of computer personnel, arrangements were made with large scale computer users for the attachment of experienced further education teachers with the aim of widening their knowledge of the latest computer techniques. The first attachments took place in the summer when ten teachers joined various firms for a period of six weeks and it is hoped to extend this scheme, both in regard to the number of teachers and firms participating, in 1969. As a result 54 more teachers were added to those already available to teach on such courses in the colleges.

10. A co-ordinating committee for examinations in computer studies was set up in January. This grew out of discussions originated by the City and Guilds of London Institute, the Royal Society of Arts and the Scottish Council for Commercial, Administrative and Professional Education about co-ordinating the work they were doing in providing schemes for further education courses and examinations in computer subjects at various levels. The British Computer Society and the National Computing Centre are represented on the committee which also has working links with the committee set up by the Engineering Industry Training Board to devise, on its own behalf and that of all the other training boards, recommendations on practical training for all grades of computer personnel. The co-ordinating committee will identify requirements for further education courses and examinations in computer studies below degree level, will allocate among its member bodies responsibility for developing schemes to meet the needs identified and will make arrangements for awarding joint certificates to successful students. The expectation is that the qualifications so awarded will rapidly gain national recognition, especially that of the computer manufacturers and users.

11. *On Course* Bulletin No. 2,* published in April, dealt with computer education in the technical colleges (see paragraph 8). The Bulletin described the full range of computer courses available and gave details of the colleges in which they were to be found.

b. INDUSTRIAL TRAINING ACT 1964

Industrial Training Boards

12. During the year industrial training boards were set up for the following industries: paper and paper products; printing and publishing; distributive trades; food, drink and tobacco; and footwear, leather and fur skin. The numbers of employer, employee and education members of these boards are—

		<i>Employer</i>	<i>Employee</i>	<i>Education</i>
Paper and Paper Products	...	6	6	4
Printing and Publishing	...	9	9	5
Distributive Trades	...	9	9	6
Food, Drink and Tobacco	...	11	11	7
Footwear, Leather and Fur Skin	...	8	8	4

This brought the total number of boards established to 26, with a total of about 16 million employees within their scope.

* Obtainable from Department of Education and Science, Room 102, Curzon Street, W.1.

Joint Planning of Training and Further Education

13. The recommendations of the training boards increasingly gave rise to the need for new or revised schemes of further education to complement their training schemes. This led to the establishment of joint advisory committees of the City and Guilds of London Institute and the regional examining bodies under the arrangements announced in October 1967.* During the year joint advisory committees were set up to devise new or revised schemes for courses in engineering, shipbuilding and construction. In the latter half of the year the joint advisory committee set up to consider engineering craft courses submitted completed revised schemes to the seven examining bodies. It was expected that courses under the new schemes would be offered in the colleges in September 1969.

14. The draft recommendations by the Engineering Industry Training Board (E.I.T.B.) for the training of technician engineers also gave rise to the need to reconsider the existing courses of associated further education. As an advisory committee of the National Advisory Council on Education for Industry and Commerce was already considering the whole field of national courses and examinations for technicians (see paragraph 38), the Department and the Scottish Education Department jointly established an ad hoc committee which recommended the introduction on an interim basis of syllabuses of additional studies which, added to existing technician and national certificate courses, would provide a suitable educational complement to the board's training recommendations. The Department made the committee's recommendations known to the E.I.T.B. and the appropriate examining bodies.

The Central Training Council

15. In April the Council's Committee on Commercial and Clerical Training published its second report *Training for Office Supervision*† which among other things drew attention to the range of courses for office supervisors available in colleges of further education and expressed the hope that more colleges would establish such courses and that there would be close co-operation between the colleges and the training boards and industry. The report was sent by the Department to L.E.A.s, colleges and regional advisory councils. This was followed at the end of the year by the Committee's third report *Training for Export Staff*‡ in which it was noted that there was a lack of demand and support for the few external courses that existed. The Committee in its recommendations said that training boards should encourage all forms of export training and that the education service should co-operate with the boards and industry to increase the provision of all types of external export courses; to ensure an adequate supply of experienced teachers and teaching material; to increase the extent of day and block release study in exporting; and, in conjunction with the appropriate professional bodies, to consider the introduction of a national system of export courses and qualifications.

16. The Council's Committee on Management Education and Training completed towards the end of the year a more detailed analysis of management

* *Education and Science in 1967*, Section II, paragraph 15.

† H.M.S.O., 2s. 0d.

‡ H.M.S.O., 6s. 6d.

training and development in industry which will form the basis of its second report to be published early in 1969.

17. In addition to the major reports mentioned above the Council published the seventh in its series of memoranda* entitled *Training Standards for Occupations Common to a Number of Industries*. This outlined a procedure for the joint planning of training programmes corresponding to those already existing for further education courses (see paragraph 13). The Council also issued a statement *Training for Skill—the Time for Change** which outlined principles to be applied if training was to make its most effective contribution to industrial and commercial efficiency. The Department circulated both these documents to regional advisory councils, local education authorities and colleges.

The Training of Training Officers and Instructors

18. Although the number of colleges providing introductory courses for training officers increased by only one (to a total of 30) compared with 1967, the number of courses provided increased from 61 to 91 while the number of trainees completing these courses rose from 810 to 1,249. A conference of representatives of the colleges and other bodies closely concerned with these courses was held at Loughborough University of Technology in July. This conference concluded that the introductory course remained an effective instrument for the initial training of training officers but that it could with benefit be supplemented by short specialised courses at later stages in their careers. A survey shows that colleges were already providing an increasing number of appropriate specialist courses.

19. At the beginning of the year the terms of reference of the Central Training Council's Committee on Training of Training Officers were extended to cover all training staff. The Committee, renamed the Committee on Training of Training Staff, now considers the training of supervisors of apprentices and commercial training, training executives and instructors, as well as the more general type of training officer.

Industrial Training in Technical Colleges

20. Most of the industrial training provided by technical colleges continues to take the form of integrated courses of combined further education and training for first year apprentices, chiefly for trainees within the scope of the E.I.T.B. Some 7,500 first year engineering apprentices within the scope of the E.I.T.B. and about 1,500 within the scope of other industrial training boards received off-the-job training in 1968 in the 240 colleges which provided integrated courses, over half of which lasted 48 weeks. The other boards concerned included those for shipbuilding, construction, electricity supply, also the Foundry Industry Training Committee. The Agricultural and the Hotel and Catering Boards stated their intention of looking to the colleges to be significant providers of industrial training as well as further education for their respective industries.

21. In October an addendum to Administrative Memorandum 9/66, which advised on the method of determining charges for industrial training provided

* Obtainable from the Department of Employment and Productivity.

in colleges of further education, advised L.E.A.s and colleges that following a review of costs of providing training, the Advisory Committee on Inter-Authority Payments for Further Education recommended that the "standard rate" for industrial training notified in the Administrative Memorandum should be increased from 6s. to 7s. 4d. but that the proportion of an integrated course deemed to be devoted to training should remain at 60 per cent of the total number of hours in the course.

C. GENERAL

22. The steady expansion in all branches of the further education service has continued. Provisional figures of student numbers were 214,300 full-time, 29,400 sandwich, 753,300 part-time day, 738,100 evening only, a total of 1,735,100 students. The number of students taking advanced courses (full-time, sandwich and part-time) rose to 181,000 in 1967.

23. Expansion of the full-time teaching force continued, and the number of full-time teachers serving in technical colleges, colleges of art and farm institutes in March 1968 was 45,000 (provisional), an increase of 4,000 over the previous year's figure.

24. As explained in detail in Sect. VI, para. 40, Circular 13/68 announced new building programme procedures for 1969-70 and subsequent years. At the same time L.E.A.s were invited to submit their proposals for the 1969-70 design list and for the preliminary list of projects they wished to start after 1st April 1971. Details of the building programme for further education establishments for 1969-70 were announced in August. The progress of building work since the White Paper of 1956* is given in Table 15.

TABLE 15.—*Progress of building work since 1956†*

Value of projects started £m.			Value of projects completed £m.			Value of projects under construction at 31.12.68 £m.
1.4.56 to 31.12.67	1.1.68 to 31.12.68	1.4.56 to 31.12.68	1.4.56 to 31.12.67	1.1.68 to 31.12.68	1.4.56 to 31.12.68	
175.3	17.9	193.2	145.7	14.0	159.7	50.9

The National Advisory Council on Education for Industry and Commerce

25. The Council and its Standing Committee each met twice during the year. Among items discussed were educational aspects of the Industrial Training Act, arrangements for liaison between industrial training boards and the further education service and education for agriculture.

26. The Council's Committee on the More Effective Use of Technical College Resources published two reports, one dealing with the use of

* *Technical Education*, Cmd. 9703, H.M.S.O., 3s. 6d.

† A re-examination of the records for the earlier years has revealed that the total value of projects completed since 1956 is £17.4m. greater than has been previously recorded.

buildings and equipment* and the other (published in January 1969) with the application of costing and other financial techniques to further education establishments.† The Committee completed taking evidence on the organisation of the college year and expected to submit its report for consideration at the Council's spring 1969 meeting.

The Council for National Academic Awards

27. The Council's work continued to expand and at the beginning of the academic year 1968-69 there were 203 C.N.A.A. degree courses in progress compared with 167 in 1967-68, including 14 postgraduate courses. A total of 15,656 students was enrolled compared with 10,687 in 1967-68.

28. Of the undergraduate courses 138 were sandwich in structure, 46 were full-time and five part-time. Four of the postgraduate courses were part-time and the rest full-time. Courses were offered by 48 colleges (four in Scotland).

29. At the beginning of the year the Council moved to new premises at 3, Devonshire Street, London, W.1.

Further Education Information Service

30. The Further Education Information Service, which was launched in 1966 to give advice to boys and girls wishing to pursue full-time courses of higher education who had not found places by the late summer, was again in operation during August and September.

31. As in the two previous years L.E.A.s provided an advisory service through officers who were readily available to give young people information and advice according to their individual needs. The Department supplied these local advisory officers with weekly "vacancy lists" which indicated the places still available on the full-time and sandwich degree and higher national diploma courses offered by about 120 technical colleges. The Department also produced a folder *What next after 'A' levels*‡ for distribution to sixth-formers and to students taking G.C.E. Advanced level and ordinary national certificate and diploma courses at technical colleges. Over 160,000 copies of the folder and over 30,000 copies of a poster for display in schools, public libraries and post offices were distributed.

32. It is clear that the Information Service is already firmly established and is proving of considerable benefit to school-leavers and others needing information and guidance on higher education opportunities.

National Colleges

33. Discussions about arrangements for the assimilation of three of these colleges, the National College of Heating, Ventilating, Refrigeration and Fan Engineering, the National College of Rubber Technology and the National Leathersellers' College, into the L.E.A. system continued during the year. In July the National College of Agricultural Engineering became an associated institution of the University of Reading. Financial responsibility

* *A Report on the Use of Buildings and Equipment*, H.M.S.O., 4s. 0d.

† *A Report on the Use of Costing and Other Financial Techniques in Technical Colleges*, H.M.S.O., 14s. 6d.

‡ Obtainable from the Department, Room 102, Curzon Street, W.1.

for the Camborne School of Metalliferous Mining, an institution very similar to a national college, was transferred from the Department to the Cornwall Education Authority in September.

d. ORGANISATION OF COURSES

General Courses

34. No new courses were launched during 1968. All ordinary national certificate schemes now have appropriate general course provision or its equivalent.

Courses for Operatives

35. The City and Guilds of London Institute added six new schemes in subjects varying from paintmaking to clothing, to the range of examinations available for operatives, and revised two existing schemes. There are now 30 different schemes for operatives in all, certain existing schemes having been replaced.

Craft Courses

36. Seven new schemes were introduced by the City and Guilds of London Institute during the year, including electrical appliance servicing, maintenance and repair of construction plant, carpet loom tuning (intermediate certificate), furniture (craft certificate), knitting machine mechanics (craft certificate), print finishing processes and refrigeration mechanics (installation and service). A further eleven schemes were revised. The total number of craft schemes now in operation is 143.

Technician Courses

37. Among the eleven new technician schemes introduced by the City and Guilds during the year were those in structural engineering, dispensing, audio visual aids and beauty therapy. An advanced certificate for chemical technicians was also introduced. Twelve other schemes were revised and there are now 121 technician schemes in operation.

Committee on Technician Courses and Examinations

38. The Committee on Technician Courses and Examinations* continued its work during the year. It received a considerable quantity of written evidence and took oral evidence from a number of representative bodies. The Committee hoped to report to the National Advisory Council by May 1969.

National Certificates and Diplomas

39. The review of higher national certificate and diploma schemes continued with the revision of the higher national certificates in civil engineering and in foundry technology. In both schemes detailed provision for a higher national diploma was made for the first time. Revised rules were also issued for the higher national certificates in electrical and electronic engineering, and further reviews undertaken of the schemes for chemical

* *Education and Science in 1967*, Section II, paragraph 39.

engineering, and for textiles and naval architecture at both higher and ordinary level.

40. A new ordinary national certificate in public administration was launched to meet the needs of students in central and local government and those in similar spheres of employment. It is administered by the Joint Committee for National Awards in Business Studies. The first courses were provided in the colleges in September 1968.

41. The first courses for the new higher national diploma in food technology started in the colleges in September 1968 and it was agreed that an ordinary national diploma in food technology for which the necessary rules and notes for guidance were formulated should be introduced in September 1969. Rules governing the new ordinary and higher national diplomas in agricultural subjects were published but courses are not expected to be available in the colleges until 1969.

42. The national diploma scheme in hotel keeping and catering was revised to conform to the normal pattern, and now provides an ordinary national diploma in hotel and catering operations, and a higher national diploma in hotel and catering administration. The first courses for these new awards will be available in September 1969.

43. A similar revision was undertaken in the field of institutional management where a new joint committee was set up to administer a scheme for an ordinary national diploma in institutional housekeeping and a higher national diploma in institutional management. The first course for these new awards will also be available in the colleges in September 1969.

44. The development of new national certificate and diploma schemes in cartography and surveying and in computer studies is under consideration.

Management and Business Studies

45. Enrolments in courses leading to the diploma in management studies for the academic year 1968-69 stood at 4,493 in October. This compared with 4,247 in 1967-68. There were 2,621 first-year students, compared with 2,506 in 1967-68. A report on the progress of the diploma with contributions by a number of colleges was published in January 1969.*

46. Following on from recommendations in the second and final report of the United Kingdom Advisory Council on Education for Management,† pilot courses in the personnel, production and marketing functions of management were offered by a number of colleges.

47. Courses for teachers in personnel, production and marketing management, provided under a scheme sponsored jointly by the education service and the Foundation for Management Education, were offered by the management centres at Bath, Birmingham and Bradford universities. The Foundation for Management Education also sponsored a scheme to send selected teachers of marketing from both universities and further education to spend a year at leading institutions in the United States. Six teachers started their courses in the autumn.

* *The Diploma in Management Studies 1961-68. D.E.S., gratis.*

† *Management Studies in Technical Colleges 1966, H.M.S.O., 3s. 0d.*

48. Numbers on courses leading to the certificate in office studies rose from 8,326 in September 1966 to 8,807 in September 1967. The certificate was awarded to 2,114 students in 1968 compared with 2,057 in 1967. The National Committee approved the introduction of a higher certificate in office studies to start in 1969. The course will consist of two years part-time study normally following upon the certificate course but at a higher level with much emphasis on communication.

49. Recommendations contained in the report of the Commercial and Clerical Training Committee of the Central Training Council* were implemented by the introduction at a number of colleges of full-time basic training courses lasting about ten weeks for young office workers. These courses were supported by industrial training boards with grants to employers using them.

Nautical Education

50. The first ordinary national diplomas in nautical science were awarded at a special ceremony on board H.Q.S. "Wellington" in London. A new scheme was introduced to provide special opportunities for study to enable deck ratings without any academic qualifications, but with the right potential to reach officer status. Much work was done in connection with the re-organisation of training for marine radio officers.

Health and Social Services

51. Increasing provision was made at colleges of further education for staff employed in the health service and the social services.

Baking

52. A National Council for Baking Education with wide representation was set up by the industry to take over the duty of the National Board for Bakery Education for the provision and development of education in the industry.

e. ART EDUCATION

National Advisory Council on Art Education

53. The National Advisory Council on Art Education met three times during the year. In addition to considering possible developments in the pattern of vocational courses the Council discussed in July the unrest which had manifested itself in some colleges of art. In the light of this discussion the Council issued an open invitation for the submission of written views on matters relating to the general structure of art and design education in colleges and schools of art with the object of providing an opportunity for the present structure to be looked at and if necessary re-assessed. In this connection a special committee was established by the Council to be presided over by its own chairman, Sir William Coldstream. The committee recognised at an early stage that it could more effectively carry out its task by working in conjunction with the National Council for Diplomas in Art and Design (N.C.D.A.D.) and it continued to function as a joint committee with a membership drawn from both councils.

* *Training for Commerce and the Office 1966*, H.M.S.O., 7s. 6d.

Diploma Courses

54. Consideration of the five applications submitted by schools and colleges in 1967 jointly to the Department and the N.C.D.A.D. for approval to offer courses leading to the Diploma in Art and Design (Dip. A.D.) resulted in approval being given for one new course and three additional chief studies in existing approved courses to run from September 1968. These brought the total number of courses to 98 at 40 schools and colleges providing just over 2,500 first year places.

55. Only one application was received during 1968 to offer a new course to start in September 1969. This was to be considered during the N.C.D.A.D.'s quinquennial review of courses which commenced in the autumn of 1968.

56. The total number of Diplomas awarded by the N.C.D.A.D. in 1968 was 1,664 which represented 94·3 per cent success (90·7 per cent in 1967). The results were as follows:—

(i) First Class Honours	...	...	...	...	...	...	140
(ii) Second Class Honours, Upper division	...	...	...	...	...	...	457
(iii) Second Class Honours, Lower division	...	...	...	...	...	...	597
(iv) Pass	...	...	...	...	...	...	470

Post-Diploma Studies

57. The N.C.D.A.D. approved a small increase in the number of post-diploma places at centres already designated under the Council's scheme for post-diploma studies which brought the total to 165 (138 in 1967). A few places remained unfilled in design studies.

f. NATIONAL FILM SCHOOL

58. The recommendation made in 1967 by a committee under the chairmanship of Lord Lloyd of Hampstead that a national film school should be established was the subject of close study but no final decision had been taken at the end of the year.

2. Teacher Training

a. COLLEGES AND STUDENTS

College Development

59. Recruitment to teacher training courses in the autumn of 1967^{*} exceeded expectations and it was evident early in the year that, largely as a result of the success of colleges of education in introducing measures for more productive use of their facilities, and of the rapid growth in numbers of mature students, the estimate of 111,000 places by 1973–74 recommended by the Committee on Higher Education[†] would be exceeded some years earlier without further major expansion of the college system. A circular letter to L.E.A.s and colleges in June therefore announced that the Secretary of State had approved only a limited number of the expansion proposals submitted in response to the invitation of July 1967.[‡] At the same time the Secretary of State indicated that he hoped that capital resources might be made available in subsequent years to remedy the worst of the deficiencies in standards of accommodation and amenity that had arisen as a result of the rapid expansion of the past decade. College authorities were invited to submit proposals for consideration by the end of 1968.

TABLE 16.—*Admissions to full-time courses of initial teacher training*

	1967	1968 (provisional)
Non-graduate entrants to colleges and departments of education:—		
Men	9,879	10,670
Women	25,899	27,932
	35,778	38,602
Colleges of education (technical):—		
Pre-service courses	1,144	1,180
In-service courses	321	298
	1,465	1,478
Art teacher training centres	499	555
Graduates taking one-year courses of professional training:—		
At university departments of education	4,265	4,602
At colleges of education	976	1,489
	5,241	6,091

Recruitment

60. Over 2,800 more non-graduate students were admitted to full-time initial training courses, reflecting further implementation of colleges' measures for fuller use of their facilities and the opening of additional college "out-

* See *Education and Science in 1967*, Section II, paragraph 66.

† *Higher Education*: Cmnd. 2154, H.M.S.O., 15s. 0d.

‡ See *Education and Science in 1967*, Section II, paragraph 65.

posts" for mature students (paragraph 66 below). The analysis prepared at the end of the year by the Central Register and Clearing House showed that although there were 5,000 more applicants than in 1967, only 230 candidates classified as "acceptable" were unable to find places, together with 904 classified as "near-acceptable" (239 and 877 respectively in 1967).

61. In addition, nearly 400 students—mostly women—were admitted to the experimental part-time courses of initial teacher training now offered by eight colleges of education in London, Manchester and the West Riding.

62. The non-graduate entrants to colleges and departments of education included about 3,600 men and 4,500 women taking courses designed to prepare them for work in secondary schools; about 5,400 men and 6,600 women following courses of junior/secondary training; and about 1,600 men and 16,700 women training to teach children in the primary age-ranges.

63. At the end of the year the total number of students following courses of all kinds in colleges and departments of education outside the universities was some 107,000 compared with about 97,000 in 1967 and about 86,000 in 1966.

One-Year Courses of Professional Training for Graduates

64. The university departments of education admitted 4,602 students compared with 4,265 in 1967. Special measures were taken to meet the exceptionally high demand for courses of professional training for graduates, and an increase of over 50 per cent in the number of graduates admitted to colleges of education was achieved. Several colleges admitted graduates for the first time, in particular, Alsager, Bognor Regis, Northern Counties, Nottingham and Lady Spencer-Churchill, Oxford. In all 1,489 students were admitted compared with 976 in 1967–68.

Day Students and Students in Lodgings

65. At the end of the year the colleges and departments of education had some 28,000 students living at home, and about 34,850 students in lodgings, compared with 24,350 and 30,750 respectively in 1967. About 26 per cent of the colleges' total student population were living at home, 33 per cent in lodgings, and 41 per cent in college or college hostels (25 per cent, 32 per cent and 43 per cent respectively in 1967).

Mature Students

66. The age analysis of non-graduate students who entered training in 1967 indicated that entrants aged 25 and over had continued to increase in both number and proportion. There were nearly 7,300 (20 per cent of the total entry) in 1967, compared with 5,900 (18 per cent) in 1966. A further increase is expected to be shown when the figures for 1968 become available, partly because of the opening during the year of another eight college outposts for mature students, making over 30 such outposts in all.

b. COURSES OF INITIAL TRAINING

Bachelor of Education Courses

67. The first B.Ed. degrees were awarded to students in the Universities of Keele, Leeds, Reading, Sheffield and Sussex. The rest of the universities maintaining an institute or school of education will follow suit in 1969 and the University of Cambridge has also agreed to offer an internal B.Ed. The proportion of the student year group proceeding to a fourth year in the academic year 1968-69 was approximately 6 per cent over the country as a whole. This proportion is expected to grow steadily over the next few years.

Science Teaching in the Colleges

68. The colleges are considering, in the face of an increasing shortfall of qualified students who do not take up places in universities, how they can further contribute to the supply of teachers of science by mounting new courses and by a re-appraisal of their existing courses in relation to the nature and level of the entry qualifications of their students and to the needs of the junior/secondary age-range. They are also considering how they can play a larger part in in-service training, especially through shorter courses catering for local needs.

Colleges of Education (Technical)

69. The majority of teachers in further education are not trained, and every effort is being made to use the resources of the colleges of education (technical) as intensively as possible to provide courses of training for serving teachers as well as the one year courses of pre-service training which are their major task. The main pressure of in-service training at present falls in the summer term, when teachers can most easily be released from their duties. In consequence the colleges are heavily loaded for part of the year while for the rest of the time their resources are under-utilised. Local authorities maintaining the colleges are considering ways of securing their more intensive use at all times and all local authorities are considering ways of spreading the load of teachers seconded on in-service training courses over the whole academic year.

70. Two colleges of education (technical) are experimenting with the provision of initial professional training for teachers in further education through a period of part-time study at outposts in colleges of further education, sandwiched between short periods of full-time study at the parent college of education (technical). Huddersfield College has 187 students on such a course, 131 of whom are at 3 outposts, and Wolverhampton 63.

Courses in France and Student Exchanges

71. Arrangements were made as in previous years to enable as many students as possible who were taking French as a main subject to spend a period of study in France. These plans were carried out in spite of the unrest in May and June. The four five-month courses at university centres in France were continued and the number of places was increased from 230 to 260. Exchanges of students lasting from four to six weeks between

colleges of education and French écoles normales were again arranged in consultation with the French Ministry of Education. Students who had not been selected for university courses in France were eligible and 49 colleges exchanged 280 students with 25 écoles normales. Some colleges find it difficult to release students to study in France during term time and as an experiment the Department arranged, in co-operation with the University of Dijon, a six weeks' vacation course for 50 students in July and August.

72. A growing number of students take German as a main subject and the exchange of such students with teacher training institutions in Germany, introduced in 1967, was continued, thirty-eight students from seven colleges going to eighteen German institutions.

c. COURSES OF FURTHER TRAINING

TABLE 17.—*Courses of further training for teachers organised by the Department*

Nature of course	1968-69		1967-68	
	Number of courses	Number attending	Number of courses	Number attending
One year courses				
Special advanced	98	1,156	91	1,057
Special educational treatment ...	38	562	38	537
Supplementary	39	321	62	456
Russian	2	26	2	24
Total of one year courses	177	2,065	193	2,074
One term courses(i)	192	1,024	144	945
Department's short courses ...	170	9,159	133	7,190

(i) Figures are for the calendar years 1968 and 1967 respectively.

Further Training for Teachers of Science and Mathematics

73. Special consideration was given to the problem of further training of teachers of science and secondary school mathematics. The rapid advance of science makes provision for such training specially important while the shortage of science teachers makes it difficult for them to leave their classes for substantial periods to attend courses. A preliminary analysis of the survey of teachers' attitudes, conducted by Manchester University* suggested that teachers who encountered these difficulties might prefer to attend courses spanning the end of term and the beginning of school holidays. Two pilot courses were therefore arranged: a six-week course in London for chemistry teachers, and a four-week course in Birmingham for physics teachers, using the generous facilities for laboratory work offered by university science departments. Attendance was not large, since the courses were arranged at short notice; but on the basis of this experience, eight six-week courses for science teachers have been arranged for July and August 1969.

* See *Education and Science in 1967*, Section II, paragraph 82.

74. The Department has derived help in its consideration of the needs of science and mathematics teachers from a series of informal discussions with representatives of the Royal Society. These discussions drew attention to a pilot experiment by the Institute of Physics and the Physical Society which has established centres for regular meetings between teachers and university lecturers and access by teachers to laboratory equipment at physics departments in universities and colleges. The Department has made funds available to enable the organisation of these centres to continue and to be extended; similar proposals for teachers of biology and chemistry are under consideration.

Courses for Lecturers at Colleges of Education and Further Education

75. Special courses were arranged for lecturers at colleges of education and colleges of further education. Subjects included business and management studies, teaching in various technologies such as painting, building, and the food and gas industries, and in matters of liberal education and welfare in colleges.

Courses for Immigrant Teachers

76. The Department has now organised ten courses of fifteen months duration to help immigrant teachers to be more proficient in spoken English and in teaching methods used in this country. The first group of four were attended by 65 teachers and the second group of six, starting between September 1967 and January 1969, will be attended by about 140 teachers.

d. ADMINISTRATION

Grants to Voluntary Colleges

77. In March new arrangements for book grants for college libraries were introduced. These followed a review by H.M. Inspectors of the previous arrangements, which had been introduced to meet the immediate situation arising from the introduction of the three-year course and the rapid expansion of the colleges in the early part of the decade. Experience had shown that those arrangements did not give the stability necessary for planned expansion and had tended to place smaller colleges at a disadvantage.

78. The new arrangements were based on minimum bookstock targets, vary according to the size of the college, to be reached over the ensuing ten years. The targets took account of all the requirements of the library apart from degree work, for which separate provision would be made on an ad hoc basis. Separate provision would also be made for libraries in outposts. An annual grant was to be paid on a much simpler basis than hitherto. Its rate was to vary with the number of students in the college and was to be adjusted periodically, within available resources, to take account of increased book prices. A non-recurring grant was also to be paid to any colleges which had still not reached the minimum bookstocks provided for under the previous arrangements.

Government of Colleges of Education

79. The Bill introduced in November 1967* became the Education (No. 2) Act 1968 on 3rd July. The Act requires L.E.A.s to make by order, with the approval of the Secretary of State, an instrument of government providing for the constitution of a body of governors for each college of education which they maintain and articles of government for the conduct of the colleges. It requires authorities also to make by order instruments and articles of government for certain colleges of further education and for special schools which they maintain ; in the case of the colleges the articles are to be made with the approval of the Secretary of State. The Act further provides that a single governing body may be constituted for any two or more colleges of further education or special schools. In Circular 22/68 the Secretary of State announced his intention of bringing the Act into force on 1st April 1969 in relation to colleges of education.

80. By the end of the year draft instruments and articles of government had been submitted to the Secretary of State in respect of all but a very few maintained colleges of education. In a few cases the Secretary of State's approval had been given, the remainder being under consideration either by the Department or by the authorities concerned following comments by the Department. During the year consideration of the schemes or instruments of government of voluntary colleges was continued.

Grants to Students

81. The revised student grant arrangements announced in Circular 21/68 (Section VI, paragraph 32) changed, in respect of courses commencing in 1969-70 and subsequent years, the condition of eligibility for admission as a recognised student. The new condition for courses of initial training is in line with that for an award for first degree and comparable courses under the University and Other Awards Regulations, i.e. the candidate must have been ordinarily resident in the U.K. for three years immediately preceding the start of his course or would have been so resident had he or his parents, or one of them, not been employed for the time being outside the U.K. For the present the Secretary of State is retaining the power to approve the exceptional admission as a recognised student of a candidate who does not satisfy the new condition.

* See *Education and Science in 1967*, Section II, paragraphs 97-98.

3. Adult Education, Public Libraries, the Youth Service and Sport

a. ADULT EDUCATION

Evening Institutes

82. The total number of students enrolled at evening institutes on 1st November was about 1,399,000 (1,419,765 in 1967) of whom 930,000 were women (935,704 in 1967). There were also many students engaged in day-time and evening non-vocational and recreational classes at further education establishments not classified as evening institutes.

Responsible Bodies

83. During the session 1967-68 there were 240,306 students attending courses provided by the university extra-mural departments, the districts of the Workers' Educational Association and the Welsh National Council of Y.M.C.A.s (236,330 in 1966-67). Figures for the various types of courses were as follows (those for the previous session being shown in brackets): tutorial 12,999 (12,750); sessional 54,170 (50,437); terminal 54,046 (50,180); residential 19,109 (18,374); training 663 (721); and other courses 99,319 (103,868).

84. Grants paid by the Department to the responsible bodies for the session 1967-68 amounted to £1,145,393 (£1,072,711 in 1966-67). The grants took account of the authorised increase in part-time and full-time work mentioned in the 1967 report and the cost of implementing the new salary scales for W.E.A. tutors from the beginning of the session.

85. For the session 1968-69 the Department was able to provide additional funds for a further increase in the volume of part-time work and for the appointment of 14 additional full-time tutors, six in extra-mural departments and eight in W.E.A. districts. Several responsible bodies were offered a grant towards courses run on an experimental basis in connection with local radio stations.

86. The Department also approved, for grant purposes, the cost of increases in rates of fees paid to part-time tutors from August.

Residential Colleges

87. Annual maintenance grants paid to the five long-term residential colleges for the session 1967-68 amounted to £125,660 (£109,771 in 1966-67). The total number of students admitted was 438 (425 in 1966-67). In addition to maintenance grant, capital grants amounting to £64,029 were paid in respect of the colleges' development work.

88. A start was made on phase II of the development work at Hillcroft College, the provision of a new block designed to accommodate 19 residential students. The building was expected to be completed by the beginning of the session 1969-70.

89. The total number of courses held at residential colleges or centres providing short courses and maintained or assisted by L.E.A.s was 1,821 during the session 1967-68 (1,774 in 1966-67) and students numbered 60,814 (58,956 in 1966-67).

National Associations

90. Direct grants amounting to £32,490 were made by the Department to the eight national associations listed in Appendix C.

b. PUBLIC LIBRARIES AND MUSEUMS

Library Advisory Councils

91. The Library Advisory Councils for England and Wales brought to a conclusion during the year their study of the supply and training of librarians commenced in 1966. Their report was submitted to the Secretary of State and was published in December.*

92. The report contained an estimate of the numbers of qualified librarians likely to be required in the foreseeable future. On the basis of certain assumptions as to the rate at which the demand would increase and with due allowance for uncertain factors such as wastage it was forecast that the annual demand for qualified librarians would rise from about 1,100 in 1968 to nearly 1,500 in the early 1980's, subsequently declining slightly. On the supply side, there had been rapid development of facilities for the training of librarians and enrolments might well result in an output of 1,400 qualified librarians by 1971. In the light of these figures the report advocated that the recent rapid expansion of facilities should be succeeded by a period of consolidation.

93. The Councils appreciated that the assumptions on which the estimates of future demand for librarians had been based were liable to be falsified by later events. They have arranged for their joint committee which had prepared the report to remain in being to keep under review policy regarding the supply and training of librarians and information officers. The report referred to the need for a comprehensive system of co-ordination of training for librarianship and recommended that representatives of the bodies particularly concerned should meet to consider what further steps might usefully be taken, such as the establishment of a standing conference. This and other recommendations were under consideration at the end of the year.

94. The remainder of the report commented on more detailed reports appended to it, which had been drawn up by working parties on the educational and training needs of librarians and on the staffing of schools of librarianship. A number of recommendations concerning the administration of the courses and examinations were addressed to the schools of librarianship, the examining bodies and libraries participating in the practical training of students. The recommendations called for changes of emphasis in the courses for non-graduates, improvements of practical training in libraries and the increased use of short courses by which librarians could continue their studies during their careers. Other matters commented upon, concerning the schools of librarianship, included the need to ensure that staff were most effectively and economically used and the importance of access to good library facilities. One conclusion reached was that no additional schools of librarianship should be established in the foreseeable future ;

* *A Report on the Supply and Training of Librarians*, H.M.S.O., 6s. 6d.

another that the small schools should consider some measure of specialisation rather than to seek to expand.

95. The Councils also produced during the year a report on the provision of service points, a topic chosen for early study by the joint committee on standards of public library service because of its fundamental importance in relation to other aspects such as staffing standards and in view of the continuing amount of new public library building undertaken by local authorities. This report was under consideration by the Secretary of State at the end of the year. In addition the Councils looked at expenditure by library authorities on the purchase of books.

96. Other matters considered by the Library Advisory Council for England, which met twice during the year, included public library services for immigrant readers. The Council submitted a statement of views on policy for national libraries which was passed to the Committee on National Libraries.

Inter-Library Co-operation

97. Circular 3/68 issued in January announced that, because of uncertainty about the local authority structure, the Secretary of State did not think it useful to designate statutory regions for inter-library co-operation under Section 3 of the Public Libraries and Museums Act 1964. He had concluded that it would be better to wait until after the report of the Royal Commission on Local Government in England had been received and considered. The Circular stated that this need not preclude local authorities from making modifications in the present voluntary arrangements where they saw advantage in doing so, and added that the Department's Library Advisers would be glad to assist them in considering changes proposed.

98. During the year the two voluntary regional organisations which arrange inter-library co-operation in inner London and in south-east England respectively completed negotiations for amalgamation in 1969. In the north of England, the three regional organisations concerned put in hand arrangements for increased mutual assistance. A Library Adviser of the Department helped with these negotiations.

99. The voluntary regional organisations during the year agreed to concentrate at the National Central Library records of the location of foreign language books since these are in relatively short supply.

100. The feasibility study of computer-assisted methods of maintaining records of non-fiction stock of co-operating libraries, referred to in the 1967 Report,* was followed by a one-year pilot project based on the existing regional organisation in the south-east of England. This project, financed by the Office for Scientific and Technical Information (OSTI), included some fundamental study of the requirements of inter-lending, such as the minimum number of locations needed.

National Central Library

101. The National Central Library, which acts as a clearing-house for inter-library loans, continued to deal with an increased number of requests

* *Education and Science in 1967*, Section II, paragraph 115.

for books and periodicals—141,977 in the 1967–68 financial year compared with 136,660 in 1966–67—and was able to supply a higher proportion from its own stock. A grant of £201,000 was made to the Library for the financial year 1968–69, an increase of £38,000 over the previous year. An important factor taken into account was the need to enable the Library to purchase more foreign books (particularly American) to meet the increasing requests from university and other libraries for help in this field.

Expenditure by Local Authorities under the Public Libraries and Museums Act 1964

102. The current expenditure of library authorities in England and Wales on the provision of public libraries and of those authorities maintaining museums or art galleries in 1967–68, compared with the previous year, is shown in Table 18.

TABLE 18.—*Expenditure by Local Authorities under the Public Libraries and Museums Act 1964*

	1966–67	1967–68	Percentage Increase
	£m.	£m.	
Public Libraries	35.7	40.0	12
Museums and Art Galleries ...	3.5	3.9	13
Total	39.2	43.9	12

103. In the public library service higher prices, especially of books, and salary and wage increases accounted for a significant part of the additional expenditure. But there was continued development of the service, particularly through the provision of more and better service points and improved staffing.

104. The increase in expenditure on local museums and art galleries was due in part to increased salaries and prices but also to the continued development of the service.

105. Expenditure on public libraries, museums and art galleries was assisted by the Exchequer through the rate support grants paid by the Ministry of Housing and Local Government under the Local Government Act 1966. The rate support grants for 1967–68 were based on estimates of local authority expenditure and a total estimated expenditure on these services of £43.9m. was taken into account. This was precisely the expenditure incurred. The comparable figure taken into account for 1968–69 was £47.9m. The rate support grants fixed for 1969–70 and 1970–71 in the Rate Support Grant Order 1968 took into account estimated expenditure on libraries, museums and art galleries of £51.7m. and £54.3m. respectively.

Public Library Authorities

(i) Capital Investment

106. Loan sanctions to the value of £5.5 m. were issued in the financial year 1967–68 in connection with new library buildings or improvements to

existing buildings, enabling work to be started on 11 new central libraries or extensions, two new county library headquarters and about a hundred new branch libraries. During the year a number of new or improved buildings came into use, including a new central library in Newcastle upon Tyne, which cost approximately £1m., and another at Grimsby, costing £450,000.

107. Financial measures following devaluation reduced the amount of capital investment available for public libraries in 1968-69 and library authorities were asked in a circular letter in May for information about projects costing over £20,000 (or less if constituting a new library) for which loan sanctions were likely to be wanted during the year. In this letter the Department for the first time gave some guidance as to building cost stating that, in general, cost should not exceed £7 per square foot, including built-in furniture and external works. A careful selection was made of the most urgently needed and deserving projects and authorities were informed whether loan sanctions would be forthcoming, if sought in the course of the financial year.

(ii) Number of Library Authorities

108. The number of library authorities at the 31st March 1968 was 393, two less than the year before. Two new authorities came into being and five authorities ceased to exist as a result of changes in local government organisation from 1st April 1968. Under the Teesside Order 1967, Middlesbrough, Redcar, Stockton-on-Tees and Thornaby-on-Tees were amalgamated to form the new county borough of Teesside, and under the Torbay Order 1966, Torquay was incorporated into the new county borough of Torbay. The urban district council of Chigwell was approved by the Secretary of State as a library authority under section 6(3) of the Public Libraries and Museums Act 1964 and assumed library powers on 1st April 1968. Chigwell was formerly served for library purposes by the Essex County Council, which supported the urban district council's application for independent powers. The two authorities entered into an agreement for mutual co-operation.

(iii) Visits by Library Advisers

109. The Department's Library Advisers continued to visit library authorities. Several authorities were visited for the purpose of an inspection of the service as a whole or an examination of particular aspects of it. These authorities included Atherton, Cheltenham, Croydon, Gillingham, Hinckley, Llandudno.

Conferences

110. The Minister of State, Miss Jennie Lee, addressed the annual Public Libraries Conference of the Library Association in Brighton in September on the progress made since the coming into force of the Public Libraries and Museums Act 1964 and on the Open University.*

* See Section III, paragraphs 14-17.

Museums and Art Galleries

(i) Capital Investment

111. Loan sanctions to the value of approximately £200,000 were issued during the financial year 1967-68 in connection with local authority museums and galleries.

(ii) Museum Byelaws

112. Model byelaws for museums and art galleries prepared by the Department in consultation with the Museums Association were circulated in December to library authorities and other authorities authorised to provide museums.

(iii) Powers to provide museums

113. The Secretary of State gave his consent under Section 12(1) of the Public Libraries and Museums Act 1964 to the rural district council of Axbridge, Somerset, providing a museum.

C. THE YOUTH SERVICE

Youth Service Development Council

114. The committee under Mr. A. N. Fairbairn, studying the relationship between the Youth Service and the schools and further education, and that under Dr. F. W. Milson, studying the relationship of the Youth Service with the adult community, reported to the Council during 1968. The Council intends, after considering the reports, to advise the Secretary of State on possible lines of development for the Youth Service.

115. In September, the Council visited north-east England as part of their review of Youth Service provision. Various types of provision were seen on the ground and valuable discussions held with elected representatives, local government officers, members of voluntary organisations, youth and community workers, schoolteachers and young people.

Full-time Youth Leaders

116. The study of the future basic training of full-time youth and community workers continued and the Department carried out consultations with the local authority associations, the Standing Conference of National Voluntary Youth Organisations, the existing training agencies, the staff associations concerned and the Youth Service Development Council.

117. The number of full-time youth leaders in post shown on the Department's Register on 31st December 1968 was 1,580. 116 men and 24 women students attended the eighth session of the National College for the Training of Youth Leaders at Leicester. 73 men and 21 women were in training at the end of the year at the other four recognised courses. 6 men and 4 women were admitted to the 1968-69 postgraduate diploma course in youth work at Manchester University.

Training for Youth Officers

118. A second residential course of training for serving youth officers sponsored by the Department was held at the National College, Leicester over a 5-week period in May and June. The nine members of staff and 57 course members were drawn from many parts of the Youth Service in England and Wales. The course was directed by Mr. W. James of the Department of Adult Education, University of Nottingham.

Grants to National Voluntary Youth Organisations

119. The Department's grants to national voluntary youth organisations towards their headquarters and training expenses increased to £346,725 (£330,050 for the previous financial year). Forty-eight organisations received these grants.

120. Special grants were awarded to the University of Leeds to examine the youth service provision made by L.E.A.s and voluntary organisations in Yorkshire and the nature, organisation and methods of co-operation between the two sections; to the National Association of Youth Clubs for the appointment of a national field officer to work with immigrants; to the Girls' Venture Corps for an experiment in community service; to the National Trust towards the "Acorns to Oaks" scheme; and to the Manchester and District Youth Development Trust for a project with immigrants in an educational priority area. A list of all grants offered is given at Appendix A.

Young Volunteer Force Foundation

121. The Young Volunteer Force Foundation, the establishment of which was mentioned in the Department's Report for 1967,* recruited and trained its first staff and by invitation supplied teams to stimulate voluntary community service in Newport (Mon.), Newcastle upon Tyne and Chesterfield, where firm local financial support had been assured. The Foundation's aim was to withdraw after establishing satisfactory local schemes, so as to become available for service elsewhere, and negotiations were in progress with other areas for an extension of the Foundation's work in 1969.

Youth Service Information Centre

122. The loans service of copies of the Centre's special collection of 3,000 significant documents became an established feature of the Centre's work during the year and an increasing number of youth officers, leaders and trainers sought help in the preparation of papers and schemes. A new publication was launched on teaching materials, and a register of research and surveys prepared. A calendar of courses and conferences at regional and national level was issued. The first series of 25 youth work project summaries was completed and the second series initiated, and short notes on a large number of development projects included in another publication. With the co-operation of the headquarters of national voluntary youth organisations some 9,000 part-time youth workers were invited to join the Centre's mailing list.

* *Education and Science in 1967*, Section II, paragraph 133.

Buildings

123. Of £32m. worth of projects programmed in the period April 1960 to March 1969, a total of 3,002 projects worth £27,048,000 had been completed by the end of 1968 and 206 projects worth £3,034,000 were in progress. Final plans for a further 193 projects worth £1,502,000 had been approved.

124. In February, the 1968–69 building programme was announced. It comprised 167 projects (statutory and voluntary) with a total building cost of £3.8m. The 1969–70 programme was announced in December and comprised 202 projects costing £4.5m.

125. From 1st April 1968 the limit for youth service minor works, both statutory and voluntary, was raised to £3,000 gross building cost.

Local Capital Grants

126. Grants under the Social and Physical Training Grant Regulations, 1939, totalling £1,067,897 were offered during the year to assist 390 local capital projects.

d. COMMUNITY PROVISION

127. The number of grants offered under the Physical Training and Recreation Act 1937 to assist local voluntary organisations with the capital cost of providing village halls and community centres showed a marked increase over the previous year. The total expenditure on the payment of grant also increased substantially from £452,650 in 1967 to £569,078 in 1968.

TABLE 19.—Capital Grants Offered to Local Voluntary Bodies
(1967 figures in brackets)

Type	Number	Value
		£
Village Halls	252 (175)	437,251 (297,582)
Community Centres	26 (27)	115,858 (166,472)

e. SPORT AND PHYSICAL RECREATION

128. 1968 was the year of the Olympic Games. The winter Games were held in Grenoble in February and the main Games in Mexico in August. Mr. Denis Howell, Parliamentary Under-Secretary of State, attended both Games and in Mexico he was accompanied by Mr. Walter Winterbottom, Director of the Sports Council. Great interest was aroused in this country, particularly as the events in Mexico were seen on television, live by satellite.

129. Disabled sportsmen and sportswomen traditionally hold their International Stoke Mandeville Games shortly after the Olympic Games, using the same facilities, but on this occasion they were held in Israel in November.

130. Two receptions were given by H.M. Government in honour of the British teams competing in the Olympic Games and the International Stoke Mandeville Games. The guests were received by the Prime Minister.

The Sports Council

131. Mr. L. E. Liddell, the new chairman of the Sports Council for Scotland, was appointed a member of the Sports Council in November.

132. Reference was made in the 1967 Report* to the transfer of responsibility for servicing the Sports Council from the Department to the Central Council of Physical Recreation (C.C.P.R.). This took full effect from the beginning of the year. As part of this arrangement Mr. Winterbottom took up the dual responsibilities of General Secretary of the C.C.P.R. and Director of the Sports Council. The status and function of the Sports Council is unchanged; it continues to advise the Government on the development of amateur sport and physical recreation and co-operation among statutory authorities and voluntary organisations. The Council's recommendations are reflected in the developments outlined in this section.

133. The Council, in consultation with the Ministry of Housing and Local Government and the Department, published a guide outlining the powers of local authorities and other bodies wishing to provide and maintain facilities for sport and physical recreation.† The Council also published in October the report of a working party under the chairmanship of Sir John Lang which had examined the difficult problem of assessing appropriate scales of provision for community sports grounds, swimming pools, and sports halls and other indoor facilities.‡ The Council also set up a number of other study groups to consider specialised aspects of its work.

Regional Sports Councils

134. There was one change of chairmanship during the year. Mrs. Peggy Jay was appointed chairman of the Greater London and South East Sports Council in March following the resignation of Mr. Jack Dunnett.

135. The year was one of substantial work for regional sports councils—of a less spectacular nature than hitherto but of considerable significance. Increasingly, regional sports councils have been involved in advising on the planning of individual sports projects. The establishment of standing conferences of sports bodies on a regional basis has provided the regional sports councils with ready access to the views of sports bodies. During the course of the year regional sports councils were invited to place all local authority proposals for capital investment in sport and physical recreation in priority categories in order to assist the Ministry of Housing and Local Government in their consideration of loan sanctions.

136. The report *Planning for Sport* is expected to provide a valuable aid to local authorities in assessing the type and amount of provision to be made for sport and physical recreation and regional sports councils are presenting and publicising this report by a series of six conferences to be held in 1969.

* *Education and Science in 1967*, Section II, paragraph 141.

† *Provision for Sport and Physical Recreation in England and Wales*, C.C.P.R., Free.

‡ *Planning for Sport*, C.C.P.R., 5s. 0d. net.

137. During the year regional sports councils carried out detailed surveys of major facilities such as golf courses, swimming pools and sports halls to enable progress to be made in identifying the gaps in provision.

138. A particularly important feature of regional sports council work during the year was the surveys made to establish the arrangements by which use could be made by the community of school facilities. Discussions have followed with L.E.A.s to see how greater use can be made of the existing facilities.

139. Of even greater significance was the part the regional sports councils played in seeking to secure the joint planning of community sports facilities with school building so that the school can become a focal point of community life and both the school and the adult community enjoy improved recreational facilities. A series of conferences was held in the regions to explain the advantages of planning in this way to local authorities and L.E.A.s, and regional sports councils also gave help and encouragement in respect of individual schemes. A measure of the success achieved in this field is indicated by the fact that at the end of the year upwards of 35 schemes involving collaboration between L.E.A.s and local authorities were either in the planning stage, under construction or in use.

Leisure in the Countryside

140. The Countryside Bill* received the Royal Assent on the 3rd July 1968. This Act established the Countryside Commission. One of the Commission's functions is to encourage the provision, development and improvement of opportunities for the public to enjoy open-air recreation in the countryside. Mr. Jack Longland, a member of the Sports Council, attends meetings of the Commission as an observer.

141. Part VII of the new Transport Act†, which places on the British Waterways Board a responsibility for maintaining a system of cruising waterways for pleasure boat usage, came into force on 18th November.

Current Grants to National Voluntary Organisations

142. There was a continued expansion in the scheme of grants under the Physical Training and Recreation Act 1937 to national voluntary organisations towards the costs of administration and national coaching programmes. Grants totalling over £710,000 were offered to 92 organisations in 1968-69, (£638,603 to 83 organisations for the previous financial year when two offers were not taken up). A full list of the grants offered is given at Appendix B.

143. The Sports Council continued to encourage governing bodies to formulate plans for the long-term development of their sports. At the end of the year the total number of development plans submitted by governing bodies had reached 37. These plans provide a basis for considering future assistance towards approved development. The pace of future development will depend on the resources available. An important factor is the ability of the governing body to raise its share of the cost.

* Countryside Act 1968, H.M.S.O., 6s. 0d.

† Transport Act 1968, H.M.S.O., 25s. 0d.

144. The grant total mentioned above included over £490,000 to the C.C.P.R. for its work in England and Wales. The Council's main function is to act as a servicing organisation for sport and physical recreation generally; in addition, as already noted, the Council has assumed responsibility for servicing the regional sports councils and the Sports Council. A detailed account of the C.C.P.R.'s work is given in its annual report for 1967-68*.

145. Reference was made in the 1967 Report† to the independent committee under the chairmanship of Lord Byers set up jointly by the Amateur Athletic Association and the British Amateur Athletic Board to enquire into the state of athletics. The report of the Byers Committee was published in May‡ and at the end of the year its far-reaching recommendations were being considered by the various bodies representing men's and women's athletics in Great Britain.

Capital Grants under the Physical Training and Recreation Act 1937

146. There was an increase in the number of applications received from voluntary organisations for grants under the Physical Training and Recreation Act 1937 to assist with the capital cost of providing new and extended facilities for sport. The total amount offered in grants during the year was £790,316 to assist with 311 projects (offers in 1967 totalled £837,254 to assist with 327 projects). Grant payments during the year totalled £943,497, a considerable increase on £663,050 for the previous year.

147. In view of the increasing demands on the funds available, it was clear that applications for grant from local sports organisations would need to be dealt with on a more selective basis. It was decided, therefore, to institute a new system under which applications would be referred to the regional sports councils to be placed in order of priority. Only those achieving a high degree of priority are now accepted for further consideration.

148. Increasing interest was shown in the formation of trusts representative of voluntary sports interests and local authorities for the provision of large scale, multi-purpose sports centres and offers of grant were made to those at Dawley, Folkestone and Grantham.

National Recreation Centres and National Facilities

149. The first course at the National Sailing Centre at Cowes was held in mid-June 1968. The centre will accommodate 48 students on a residential basis.

150. A working party was set up by the Sports Council to consider the need for further facilities at the national level for training and competition with the aim of making recommendations for a phased programme which would enable available resources to be used where they were needed most.

* *Sport for All*, C.C.P.R., 4s. 0d.

† *Education and Science in 1967*, Section II, paragraph 150.

‡ *Report of the Committee of Enquiry into the Development of Athletics A.A.A./B.A.A.B.*, 2s. 6d. net.

Technical Unit for Sport

151. During the year the nucleus of a Technical Unit for Sport was established in the Department. This unit, which is composed of architects and other professional staff and comes under the direction of the Department's Chief Architect, is responsible for giving technical advice to the Ministry of Housing and Local Government and the Department on local authority and L.E.A. schemes for the provision of facilities for sport and physical recreation. As the unit is built up and gains experience, it is hoped that it will be able to provide advice to local authorities and others on the planning of sports projects and to undertake development work in this field.

Research

152. *Training of Research Assistants*: under the scheme recommended by the Sports Council, four bursaries were awarded to university or college lecturers to study research techniques under senior research workers. The total number of bursaries awarded since the introduction of the scheme in 1966 amounted to twelve.

153. *Research projects*: reference was made in the 1967 Report* to offers of grant totalling some £32,000 towards the cost of five research projects. During 1968 on the recommendation of the Sports Council further grants were offered for the following:

- (a) a study into the detection of anabolic steroids, by the Department of Chemical Pathology at St. Thomas's Hospital Medical School: grant £6,154;
- (b) a study of the recreational aspects of horse riding, by the Physical Education Department of the University of Birmingham: grant £660, the balance of £650 being contributed by the British Horse Society;
- (c) a study of the recreational aspects of rugby union football, by the Sports Council for Wales: grant £345, the balance of £200 being contributed by the Welsh Rugby Union and the Rugby Football Union.

154. *Documentation*: The Department agreed a Sports Council recommendation to support by grant for a period of five years the establishment of a documentation centre at Queens University, Belfast. It is expected that the centre will be in operation early in 1969. Its aim will be to develop close contacts with similar centres overseas and to make its own special contribution to documentation, including coverage of the sociology of leisure with particular reference to sport and physical recreation.

* *Education and Science in 1967*, Section II, paragraph 156.

Doping of Sports Competitors

155. In pursuance of the recommendation of the Council of Europe on the Doping of Athletes (Resolution 67(12) of the Committee of Ministers), the Sports Council approached the governing bodies of sport to ascertain the present position in relation to the practice of doping and, if appropriate, whether any measures were in being or contemplated through their international federations. The replies so far received were being evaluated at the end of the year. A preliminary analysis showed that doping is not a serious problem in this country.

International Events and Conferences

156. Grants totalling £37,924 were offered, on the recommendation of the Sports Council, for a wide variety of events taking place during the financial year 1968-69 (grants totalling £46,533 were offered for events and conferences in 1967-68).

157. The grants included offers for visits to Australia, New Zealand and the U.S.A., by national teams representing women's cricket, croquet, ice-skating and athletics; many grants were also given for events taking place nearer home. Grants were also offered to schools associations for rugby, union football, basket ball and sailing events and conferences taking place in France, Belgium, Holland and Germany.

158. Grants were offered for home events of outstanding importance; these were the World Youth Fencing Championships in London, the European Water-Skiing Championships at Ashford, Middlesex, the Squash Rackets Association International Championships in London and Manchester and the Union Internationale des Associations d'Alpinisme Assembly (the Mountaineering Congress) held in London. Grants for International Conferences were given towards travel costs, generally for one delegate in each case from each organisation.

1968 Olympic Games

159. Thirteen governing bodies of sport took advantage of the scheme of assistance for pre-Olympic training in Britain announced at the end of 1967. Grants amounting to £4,557 were offered. The scheme for grant-aid to governing bodies sending competitors for high altitude training at Font Romeu continued; parties of athletes, swimmers, canoeists, wrestlers, weightlifters and modern pentathletes again took advantage of the offer.

160. To enable our athletes to train for the Olympic Games on the same surface as that provided in Mexico, the Department, on the recommendation of the Sports Council, offered a grant to the C.C.P.R. to meet 75 per cent of the cost of providing a Tartan all-weather track at the Crystal Palace National Recreation Centre; the remainder of the cost was met by the Greater London Council. The total cost of the track was £67,400.

161. The Government agreed to make a grant to the British Olympic Association towards the cost of our participation in the 1968 Olympics. The offer of grant was based on 50 per cent of the travel costs of competitors, coaches and managers and a modest daily allowance for competitors towards

out-of-pocket expenses. Grant was also offered towards the travel costs of technical officials.

162. The British Sports Association for the Disabled were offered a grant of £2,000 towards the expenses of sending a team to the International Stoke Mandeville Games in Israel.

Professional Sport

163. In May the football authorities set up, at the instigation of the Parliamentary Under-Secretary a working party to examine the problems associated with crowd behaviour at football matches. This followed the publication of a report by Dr. Harrington of the Uffculme Clinic, Birmingham, on this subject. The working party, which was under the chairmanship of Sir John Lang, the Government's adviser on sport, was particularly concerned with the consideration of practical measures on which advice and guidance might be given to clubs and other interested parties.

164. On 2nd July, Mr. Denis Howell announced in the House of Commons that following discussions with the Liverpool Corporation, the Turf authorities, the Horserace Betting Levy Board and Tophams Limited (the present owners of the Aintree racecourse) the Government had informed Liverpool Corporation that they were prepared to give loan sanction for the capital sum required for the acquisition of the racecourse. The Government would also be prepared to consider an application under the provisions of Section 8 of the Local Government Act 1966 for a grant not exceeding 50 per cent in respect of that portion of the site which was to be kept as public open space. Mr. Howell reported that Liverpool Corporation placed great importance on obtaining full public access for general recreational purposes at Aintree on all days when racing was not taking place.

Association Football Enquiry

165. In May the report of the inquiry into football, under the chairmanship of Mr. D. N. Chester, was published.* The Chester Committee made wide-ranging recommendations over the whole field of association football which will require long and careful examination by the football authorities, the Government and all others concerned.

* *Report of the Committee on Football*, H.M.S.O., 11s. 0d.

SECTION III

THE UNIVERSITIES (GREAT BRITAIN)

Introduction

1. This section of the Report does not traverse in detail the subject-matter of the various reports of the University Grants Committee and other bodies concerned with university development during the year. It is confined to matters in which the Department has been directly concerned. Besides dealing with the universities on the University Grants Committee grant list, this section includes information about certain institutions receiving direct from the Department grant that is carried on the Vote for Universities and Colleges etc. in Great Britain.

a. UNIVERSITY GRANTS COMMITTEE

2. Sir John Wolfenden, C.B.E., who was appointed chairman of the Committee in 1963, tendered his resignation with effect from 31st December to take up the post of director of the British Museum. It was announced in November that Mr. Kenneth Berrill had been appointed in succession to him and would take up his duties in the New Year. Mr. Berrill became Bursar of Kings College, Cambridge, in 1964, and in 1967 took up an appointment at H.M. Treasury as a special economic adviser.

b. UNIVERSITY FINANCE

University Accountability

3. The Government's decision to give the Comptroller and Auditor General access to the books and records of the U.G.C. and of the universities, which had been announced by the Secretary of State on 26th July 1967, took effect on 1st January 1968.

Building Programmes

4. As part of the Government's measures to reduce public expenditure, which were announced to Parliament on 16th January 1968, authorised starts on university buildings to the value of £3.2m. were deferred from the 1967-68 to the 1968-69 programme, which was itself reduced from £31m. to £28.7m. Following their normal review of public expenditure and probable future calls on their resources, the Government asked in July for the universities' building programme for 1968-69 to be reduced by a further £10m. The values of the programmes were thus finally settled at £31.9m. for 1967-68 and £18.7m. for 1968-69. The value of the 1969-70 programme remained unchanged at £29m.

5. A special capital allocation of £540,000 was made to certain universities to provide additional work in the development areas and areas of high unemployment during the winter of 1967-68. For the two years 1970-71 and 1971-72 a building programme totalling £50m. was announced early in 1969.

Grants for Furniture

6. In the course of the year a new system was authorised for assessing the non-recurrent grants made available by the U.G.C. to universities for the furnishing of new buildings or accommodation converted to a fresh use by adaptation. Hitherto grants for non-residential accommodation had been calculated either by reference to costed schedules of furniture, or by a monetary allowance per square foot related to the area of new accommodation. In future a unit furniture allowance per place will be used wherever possible. This new system is intended both to simplify the grant calculations and procedures and to enable the expenditure limits for furniture to be fixed at an earlier stage in the design of new buildings.

Science Accommodation

7. A joint study by the Department, the Scottish Education Department and the U.G.C. resulted in a re-assessment of the areas of new accommodation required for the basic sciences and in a new technique for fixing expenditure limits.

c. UNIVERSITY DEVELOPMENT

8. The granting of charters to the Universities of Stirling and Dundee in 1967 saw the end of the growth in the number of university institutions which, during the 10 years since 1958, had added 21 fully autonomous universities to the U.G.C.'s list. Although no new universities came into existence in 1968, student numbers continued to rise: the provisional figure supplied to the U.G.C. by the universities in October 1968 was nearly 212,000 compared with 199,372 in 1967.

Medical Education

9. The Report of the Royal Commission on Medical Education was published on 4th April.* This included a number of recommendations and suggestions regarding the organisation and content of medical courses, at both undergraduate and postgraduate training levels, and called for a substantial increase in the number of medical school places over the next 20 years so as to double the annual entry to over 5,000 by 1990. It called also for a reorganisation of medical schools in London, involving the fusing in pairs of the existing 12 undergraduate schools to form six large schools, each closely associated with a multi-faculty college of the university. The

* Cmnd. 3569, H.M.S.O., £1 8s. 6d.

point of most direct concern to the Department was a call for the expansion of medical school places, and there were discussions with the U.G.C., the Health Departments and the Treasury on the acceptable scale of expansion and how this might best be achieved.

10. Many of the other suggestions in the Report were primarily for the universities and medical schools themselves, the General Medical Council (who, under the Medical Act 1956, have responsibility for the standards of registrable qualifications), the Health Departments and the professional colleges and institutions. The Department, the Health Departments and the U.G.C. were in consultation with these other bodies as appropriate.

11. The intake to the pre-clinical medical schools meanwhile continued to rise, as a result of the steps already taken by the U.G.C. and the universities to increase facilities and numbers wherever possible. 2,678 entered in October 1968 compared with 2,544 a year earlier.

d. THE ROYAL COLLEGE OF ART

12. The Visiting Committee, appointed in 1967 to advise the Secretary of State on the developments proposed by the College and on the appropriate level of grant in aid, visited the College in January and February and, after discussions with the College's Council, staff and students, submitted a report on the levels of grant needed for the triennium 1968-71.

e. THE COLLEGE OF AERONAUTICS, CRANFIELD

13. The College's petition for the grant of a Royal Charter empowering it to award degrees was considered by the Privy Council, and the College was invited to submit further supporting evidence. No decision had been reached by the end of the year.

f. THE OPEN UNIVERSITY

14. The Open University Planning Committee moved in January to premises at 38 Belgrave Square, S.W.1, which will serve as the University's headquarters until permanent headquarters are established. In March the Committee published their proposals for the curriculum and courses of the Open University, which were as follows:—

Ordinary degrees and honours degrees would be provided—six credits for an ordinary degree and eight for an honours degree. The normal minimum period for getting a degree would be four years. The first year's foundation courses would be based on the following:

1. Understanding Science.
2. Mathematics.

3. Understanding society.

4. Literature and civilisation.

These correspond to four main degree "lines"—science, technology, social science and arts ; but combinations of subjects drawn from different "lines" would be encouraged.

15. In addition to degree courses, diploma and short courses would be provided to meet national needs.

16. The Committee, in anticipation of the grant of the charter for the University, appointed the Vice-Chancellor (Professor W. L. M. Perry) who would take up his appointment from January 1969, and made a number of other senior appointments, including Directors of Studies, Heads of Departments, and the Secretary of the University.

17. In December the Secretary of State made, on behalf of the Planning Committee, a formal application to the Privy Council for the grant of a charter, and submitted a draft Charter and Statutes for the new University. Towards the end of the year the Planning Committee, which had been charged with the task of working out a comprehensive plan for the development of the Open University, submitted their report to the Secretary of State.

g. UNIVERSITY ACADEMIC SALARIES AND SUPERANNUATION

Salaries

18. University academic remuneration was made the subject of a standing reference to the National Board for Prices and Incomes, which required the Board to keep it under continuous review, in November 1967. The Board's first report under this reference, No. 98, was published on 18th December. It was announced at the same time that the government had accepted those recommendations which immediately affected salary levels. Their effect was to improve non-clinical salaries overall by an average of 5 per cent. Existing scales for assistant lecturers and lecturers were combined into a shorter single scale with a higher minimum. This gave increases averaging 7 per cent overall and ranging from 10 per cent to 17 per cent for assistant lecturers and from 4 to 10 per cent for lecturers. Senior lecturers' and readers' salaries were increased by 3 per cent, and professors' by 2 per cent. The new scales, effective from 1st October 1968 were:

assistant lecturers and lecturers: £1,240 × £115 (13) to £2,735

senior lecturers and readers: ranges with varying maxima up to £3,520

professors: average salary at each institution not to exceed £4,500.

19. The Government also accepted the recommendation that clinical staff holding honorary N.H.S. consultancies should be paid, from the same date, on the same scale as N.H.S. consultants. No change was made in the salaries of other clinical teachers, which would be for review in the light of the recommendations of the next report of the Review Body on Doctors' and Dentists' Remuneration.

20. The Board's other recommendations were left for further consideration in the light of the advice of the U.G.C. after their discussions with the interested parties. The chief of these was for the introduction from 1st October 1969 of a discretionary system of distinction awards for professors and merit awards for other grades up to a ceiling of 4 per cent of the total salary bill, to encourage and reward excellence in teaching. The government did not consider it desirable that assessments by students of their teachers' performance should, as the Board had suggested, play any part in determining the allocation of these awards.

Superannuation

21. The Working Party established under the chairmanship of Sir George Maddex in September 1964, had completed their work on 30th November 1967, and their report* was published on 26th January. The report examined in detail the basic differences between the superannuation provision available through insurance policies under the existing Federated Superannuation System for Universities (F.S.S.U.) and a hypothetical scheme, on the lines of the school teachers' and other schemes in the public services, which would provide benefits directly related to terminal salary. The Working Party took the view that the terminal salary scheme they described was the best alternative to F.S.S.U. likely to be available, but they were unable for various reasons, in particular the uncertain future trends of a number of economic factors, to make a clear recommendation in favour of either system. At the end of the year the matter was still being considered by the universities.

h. PUBLICATIONS

22. *University Development 1962-67*† the U.G.C.'s Report to the Secretary of State on the quinquennium ended in July 1967, was published in November. Their *Annual Survey*‡ for the academic year 1967-68, describing university developments during most of the period covered by this report, was published early in 1969. The *Returns from Universities and University Colleges for the year 1965-66*,§ published by the U.G.C. in April, reflected changed methods of collection and collation of data. The Committee's *Analysis of First Employment of University Graduates*,|| was published in October.

23. The Report of the U.G.C.'s *Enquiry into Student Progress, 1968*¶ was published in August.

24. *The Report of the Open University Planning Committee*,†† was presented to the Secretary of State in December and was published early in 1969.

* H.M.S.O., 6s. 6d.

† Cmnd. 3820, H.M.S.O., 19s. 6d.

‡ Cmnd. 3914, H.M.S.O., 2s. 3d.

§ Cmnd. 3586, H.M.S.O., 20s. 0d.

|| H.M.S.O., 7s. 0d.

¶ H.M.S.O., 27s. 6d.

†† H.M.S.O., 4s. 0d.

SECTION IV

CIVIL SCIENCE (UNITED KINGDOM)

Introduction

1. Last year's report included for the first time a section dealing with developments in the civil science field which is the responsibility of the Secretary of State. It gave some background information on this responsibility and on the five research councils which report to the Secretary of State. This year's note therefore begins with a brief progress report on the past year's development of activities in the research councils.* The section continues with an account of the work of the Council for Scientific Policy and concludes with notes on overseas scientific relations and on scientific and technical information services. Scientific manpower is dealt with in Section VI, paragraphs 98–103.

a. FINANCE

2. The science votes for the financial year ending 31st March 1969 totalled £83·5m., divided as follows:—

				<i>£m.</i>
Agricultural Research Council	...	...	...	13·2
Medical Research Council	...	...	...	15·3
Natural Environment Research Council	...	...	...	9·0
Social Science Research Council	...	...	...	1·7
Science Research Council	...	...	...	41·9
Natural History Museum	...	...	...	1·0
Science grants and services	...	...	...	1·4

3. Excepting the Social Science Research Council vote this represented an increase in real terms (i.e. taking price rises into account) of 10 per cent on the corresponding votes for 1967–68. After making allowance for subsequent adjustments in the 1967–68 expenditure and the 1968–69 estimates and for the effect of devaluation on overseas payments, the effective net increase on the previous year was $7\frac{1}{2}$ per cent. The broad distribution of funds, made on the advice of the Council for Scientific Policy, took account of the current needs of the individual research councils, and special priority was given to relatively rapid initial expansion of the Natural Environment Research Council, and the scientific and technical documentation service.

* More detailed accounts of the research councils' activities are given in their annual reports covering the year to 31st March.

b. THE RESEARCH COUNCILS

Agricultural Research Council (A.R.C.)

4. The Council supported research in 24 of its own institutes and units and grant-aided 14 independent organisations. It also advised the Department of Agriculture and Fisheries for Scotland on the research programmes of eight organisations grant-aided by that Department. A new Meat Research Institute (for which the industry contributes 50 per cent of the cost) was opened on the campus of Bristol University and a new Food Research Institute at Norwich. The Council made 104 research grants to university departments and four new training awards in 1968-69.

Medical Research Council (M.R.C.)

5. The Council maintained some 80 research units of its own and some 115 members of its external scientific staff. It assisted four autonomous research institutions by means of block grants, supported up to 33 groups, contributed to the support of 1,238 individual research workers at universities and elsewhere and awarded 999 new fellowships and studentships.

6. Work continued on the construction of the Clinical Research Centre in association with a new Regional Board hospital at Northwick Park, London, which it is hoped will be opened in 1970. While the Centre is being constructed, teams of scientific and supporting staff are already being built up in the form of shadow divisions and sections, some of which have already started their research programmes while temporarily housed elsewhere.

Natural Environment Research Council (N.E.R.C.)

7. The Council maintained seven research organisations and units of its own and grant-aided eight independent bodies. It supported 412 groups and individuals at universities and elsewhere and awarded 334 new studentships and fellowships.

8. A new Research Vessels Committee was added to the existing six main committees advising the Council on its programme. The Council's research vessels are now serviced by its own Research Vessels Unit. The R.R.S. *John Murray* completed a successful first year of operation; two new research vessels are being built, one for use jointly by the Scottish Marine Biological Association and university research departments, and the other to replace the British Antarctic Survey's R.R.S. *Shackleton*.

Social Science Research Council (S.S.R.C.)

9. The range of subjects now covered by the Council includes accountancy, criminology, economics, political science, social anthropology, ethnology, sociology, psychology, education, social and economic statistics, management and industrial relations, social and economic history, non-physical geography and town planning.

10. New commitments entered into in 1968 in support of research projects in universities and elsewhere amounted to £1.4m. (£1m. in 1967-68). 921 new studentships and fellowships were awarded (550 in 1967-68). The Council does not at present conduct its own research.

Science Research Council (S.R.C.)

11. The grant-in-aid to the S.R.C. is just over half of the total of the science votes. In 1968–69 the part paid in contributions to international organisations (the European Space and Nuclear Research Organisations and NATO scientific schemes) rose disproportionately to £11.6m. (£9.8m. in 1967–68) because of the effect of devaluation. Although the U.K. continued to contribute towards the basic CERN programme, it was decided not to participate in the proposed new European large accelerator project (the 300 GeV machine).^{*} The U.K. policy towards ESRO was outlined in the Minister of Technology's statement in April on European space policy and was elaborated at the Ministerial Space Conference in Bonn in November.

12. At home, £11.4m. of new research grants were made to universities during the academic year 1967–68 for work of "timeliness and promise", and 2,060 new postgraduate research studentships and fellowships in science and technology were awarded. More emphasis was given in the year to supporting research projects of special interest and value to industry and to encouraging postgraduate students to enter industry or teaching. The outstanding scientific achievement made with the help of a grant from the S.R.C. was the discovery and measurement by radio astronomers at the Universities of Cambridge and Manchester of "pulsars", rapidly pulsating radio sources previously unknown.

13. At the S.R.C.'s nuclear physics laboratory at Daresbury, the electron synchrotron came into full use for experiments in collaboration with northern universities.

c. THE COUNCIL FOR SCIENTIFIC POLICY

14. During the year the Council for Scientific Policy (C.S.P.) discussed with the Agricultural, Medical, Natural Environment and Science Research Councils their proposals for expenditure in the period up to 1973–74, taking into account the need to provide for continued support for fundamental research and at the same time for the economic application of research in the interest of the nation's resources. In the light of these discussions the Council made recommendations to the Secretary of State about the scale of expenditure on the science votes over that period.

15. A full account of the Council's activities will appear in their third report which is to be prepared for publication in 1969.

16. A number of reports arising from the work of the Council and its working groups were published during the year and are referred to in the following paragraphs. Two reports however, that of the *Enquiry into the Flow of Candidates in Science and Technology into Higher Education*[†] and by the Working Group on Manpower for Scientific Growth[‡] are dealt with in Section VI, paragraphs 98–99. Also, two further Science Policy Studies

^{*} See paragraph 18.

[†] The Dainton Report, Cmnd. 3541, H.M.S.O., 13s. 0d.

[‡] The Flow into Employment of Scientists, Engineers and Technologists (the Swann Report), Cmnd. 3760, H.M.S.O., 17s. 6d.

were published, No. 2 *Occupational Choice** and No. 3 *Employment of Highly Specialised Graduates*.† The report of the Working Group on Molecular Biology,‡ chairman Professor J. C. Kendrew, recommended measures to encourage a multi-disciplinary approach to research and teaching in biology at the molecular level and to strengthen university teaching in the subject. These included a greater use of the untapped teaching potential of non-university research laboratories and the creation of focal centres of teaching and research at a few selected universities. The object of the proposals was to enable the U.K. to keep pace with rapid international developments in molecular biology.

17. The report of the Council's Working Party on *Liaison between the Universities and Government Research Establishments*§ had noted in 1967 that there was already some liaison of this sort, which had been growing during the past few years, and recommended to universities and Government laboratories various ways to increase such collaboration. It seemed appropriate, after a suitable lapse of time, to examine the extent to which these recommendations had been adopted. The Department therefore enquired of the Government laboratories concerned, while the chairman of the U.G.C. enquired similarly of the universities. This new evidence suggests a substantial increase in relationships of the general kind recommended, often directly or less directly, as a result of the reports.

18. A major scientific project which the Government considered was the proposal that the U.K. should join in a new major European project in high energy nuclear physics: a large and very expensive proton synchrotron of 300 GeV energy. The advice which the Secretary of State received from the Council on this proposal (which included the advice of the S.R.C. and of a special working party of the C.S.P. which examined the wider implications of the proposal) was published.|| Both Councils supported the scientific value of the project and recommended U.K. participation, provided that assurances could be given that the rest of science might properly develop. The Government, after considering the matter very carefully, decided against participation. While not questioning the scientific judgment of the two Councils, whose advice was of the greatest assistance in reaching a decision, the Government had to bear in mind their heavy overseas financial obligations, which other potential participants in the new project did not have, the difficulties of giving the necessary guarantees to the rest of science for so far into the future, the absence of short or medium term prospects of economic benefit, and the fact that there was so far little movement into industry of the skilled manpower trained by participation in research in high energy physics, which will continue to enjoy access to many other facilities. The Secretary of State met the Council to explain the Government's decision to them.

19. After the Working Group on Manpower for Scientific Growth had completed its task, it was decided that its sub-committee on biology should

* H.M.S.O., 3s. 6d.

† H.M.S.O., 4s. 6d.

‡ *Report of the Working Group on Molecular Biology*, Cmnd. 3675, H.M.S.O., 2s. 6d.

§ Cmnd. 3222, H.M.S.O., 14s. 6d.

|| *The Proposed 300 GeV Accelerator*, Cmnd. 3503, H.M.S.O., 7s. 9d.

become a Working Group on Biological Manpower and report to the C.S.P. Under the chairmanship of Dr. R. D. Keynes, F.R.S., it is examining in detail the problems of manpower in the biological or life sciences. A detailed analysis of the manpower stock and its deployment and of the present supply of qualified scientists over the whole biological field is being prepared and the current needs in these areas assessed.

20. During the year the Council continued its practice of maintaining contact with those who are concerned with science policy in other countries. Members of the Council visited Italy in October for discussions with the National Research Council, the Ministry for Scientific Research and a number of national and international research laboratories and institutes. The Council also welcomed groups of scientists from Italy and Japan and discussed problems of science policy with them. In addition individual visitors who consulted the chairman and secretariat came from a wide range of countries including Australia, Canada, France, Germany, Hungary, Rumania, Sweden, Turkey, the United Arab Republic and the U.S.A., as well as from the World Health Organisation and the O.E.C.D. The Council's Standing Committee on International Scientific Relations set up a working group on international research facilities to consider how proposed and existing international research facilities affect scientific research in the United Kingdom and to advise what United Kingdom policy should be in the future.

d. INTERNATIONAL RELATIONS (SCIENCE)

21. Over the whole field of scientific affairs for which the Secretary of State is responsible to Parliament, a considerable amount of effort and finance is devoted to international scientific relations. In particular, the research councils maintain and develop contacts with scientists and scientific organisations abroad and participate in joint activities, both governmental and non-governmental, in their respective fields. International affairs also constitute an important and integral part of the field of responsibility of the C.S.P.

22. These aspects of international scientific relations are described in the research councils' own reports and this present section is therefore mainly concerned with activities which are the responsibility of the Department's International Scientific Relations Division (I.S.R.D.). Several of these activities are inter-departmental in character, the Department acting in a co-ordinating role.

Intergovernmental Organisations

23. An important event of the year was the third Ministerial meeting on science held in March. Like its predecessors, this took place at the O.E.C.D. offices in Paris. The United Kingdom was represented at the meeting by the Secretary of State for Education and Science and the Minister of Technology. The Ministers discussed the effect on social and economic development of technological gaps between member countries, the promotion and organisation of fundamental research, and the development of national and international policies for handling the rapid growth of scientific and technical

information. The meeting made recommendations for national and international action in these fields and these will be reflected in the 1969 programme of work of the O.E.C.D. and its scientific committees. In particular the Committee for Science Policy will be giving more attention to questions affecting the health of fundamental research.

24. Participation in the scientific work of intergovernmental organisations that are not themselves scientific may be justifiable for any of a variety of reasons including better use of available facilities, encouragement of a multi-disciplinary approach, exchange of information and experience among countries at about the same stage of development, and assistance to the less-developed regions. In addition, and although projects must be evaluated primarily on scientific grounds, economic and political factors have to be taken into account. In some fields of research where several organisations are active it is important to prevent unnecessary duplication of effort and a necessary step towards achieving this is to ensure that national representatives are fully aware of the various activities and of their countries' commitments to them.

25. I.S.R.D. seeks to ensure that both aspects of the problem of intergovernmental co-operation are covered so far as the United Kingdom is concerned by co-ordinating departmental views and ensuring that United Kingdom representatives are adequately briefed. In this connection the Division, as part of its responsibility for promoting United Kingdom participation in international scientific activities, assists other government departments to keep abreast of developments in international co-operation in air pollution and water resources research, both of which are activities widely undertaken on an international basis.

26. The O.E.C.D. Committee for Research Co-operation set up two new advisory groups to deal with transportation and air management research respectively, in line with its policy of concentrating its attention on broad sectors of the public domain; groups already exist for water management research and for scientific and technical information policy. These groups bring together senior administrators and scientists responsible for the formulation of national policies and the management of research programmes. The major task of these groups is to identify priority sectors for research with particular reference to those that could benefit from co-operative action.

27. The level of activity under the civil science programme of NATO was maintained in 1968, the budget being just over £1¼m. The United Kingdom share of this (about one-fifth) is paid by the S.R.C. These programmes, of which the three major ones are for science fellowships, advanced study institutes and research grants, are intended to contribute towards strengthening the scientific capability of members of the alliance and are supervised by the NATO Science Committee. The Committee is considering possible ways of increasing the effectiveness of its work.

28. The 15th UNESCO General Conference was held in October and November 1968 and the Department, with the assistance of the research councils, advised the United Kingdom National Commission, through the Royal Society UNESCO Committee, on the natural sciences aspects of the UNESCO programme for the two-year period 1969-70. Considerable emphasis will be given in the course of the next few years to environmental

questions including oceanography and hydrology, building on the already important UNESCO activities in these sectors.

29. The activities of the Council of Europe that have been of most concern to the scientific side of the Department are those of its European Committee for the Conservation of Nature and Natural Resources. This Committee's programme covers a wide variety of projects in the environmental field, ranging from soil erosion to pollution of water and of the air. The Committee has set up a European Information Centre to increase the effectiveness of its work, the Centre's most important function being to provide a clearing house for information, education and publicity material about conservation affairs.

30. The Department provided United Kingdom representatives at a series of intergovernmental conferences convened by the Swiss Government to draw up an arrangement for providing intergovernmental financial support for the European Molecular Biology Organisation (EMBO) in the years following 1968, when its support from the Volkswagen Foundation came to an end. As a result of these meetings it has been agreed, subject to ratification by Parliaments, to establish a new intergovernmental body, the European Molecular Biology Conference, through which the participating countries will give financial support to EMBO to enable it to continue its activities of assisting European co-operation in molecular biology principally by promoting the interchange of research workers.

31. The Commonwealth Scientific Committee met in 1968 in Pakistan, the latest of its biennial meetings which take place in different parts of the Commonwealth. The Committee's aim is to ensure the fullest possible collaboration among the civil scientific organisations of the Commonwealth. This requires that special attention be given to helping the less-developed members of the Commonwealth to strengthen their scientific infrastructures and to increase the role played by science and scientists in the economic development of these countries. For this reason the Ministry of Overseas Development participates in the Committee's activities, in association with the Department, the research councils and the Royal Society, and the Ministry of Technology.

Ministerial Consultations and Visits

32. The Secretary of State visited the Federal Republic of Germany during June at the invitation of the Federal Minister for Scientific Research, Dr. Gerhard Stoltenberg. Following discussions with Dr. Stoltenberg in Bonn, he travelled to Munich. There he met, among others, the Minister of Education of Bavaria and the President of the Max Planck Gesellschaft and he visited the Plasma Physics Institute, the Physiological Institute of the Max Planck Gesellschaft and the German Satellite Earth Station at Raisling.

33. In December the Minister of State responsible for science and for the universities met the New Zealand Minister responsible for scientific affairs, the Hon. B. E. Talboys. The discussion concentrated on the relationship between government and universities. Mr. Talboys was particularly interested in the balance between university autonomy and the implementation of national policies.

Visits and Exchanges of Scientists and Research Workers

34. As part of its policy of stimulating European scientific interchange the Department has continued and increased its support of the Royal Society's European Science Programme which promotes the exchange of scientific research workers in Europe. This scheme has developed encouragingly during the year and now embraces most countries in Western Europe.

35. I.S.R.D. continued to co-ordinate the arrangements for scientific exchanges under the provisions of the Anglo-Soviet Cultural Agreement in 1968; 8 British scientists and 17 Soviet scientists were involved in these arrangements. The visits lasted for periods ranging from two weeks to six months and covered many fields of scientific interest including all branches of physical and biological sciences and some social sciences. The average age of the participants was 38 years. The work called for close collaboration with the Foreign and Commonwealth Office, and with the British Council.

36. It was possible to assess the value of the experiment involving an agreed quota of exchange visits of scientific workers whose expenses were borne by the receiving country instead of, as normal, the sending country. The objective of this scheme was to encourage longer term visits to the U.S.S.R. When the Cultural Agreement was re-negotiated in 1967 for a further two-year period, quotas were agreed for visits of between two weeks and six months. These exchanges proceeded satisfactorily and at review talks in March 1968 the quotas were increased to the equivalent of about 100 man-weeks. In the course of the year 7 British and 10 Russian research workers made visits under these arrangements. The method of selection adopted on the British side was simple and effective, universities being invited by the Committee of Vice-Chancellors and Principals to submit names of suitably qualified candidates for consideration by the Committee, the British Council and I.S.R.D.

37. I.S.R.D. also made arrangements for foreign scientists to visit government research laboratories research associations, government departments and public corporations. Many of these visitors came to the U.K. under the auspices of the British Council, the United Nations Organisation and the Ministry of Overseas Development. There were 105 visitors of this type within the total of 130 foreign scientists and scientific administrators dealt with by I.S.R.D. during the year.

Overseas Scientific Representation

38. The post of Scientific Counsellor in the High Commission in Ottawa was filled in April 1968. Although this is a Ministry of Technology appointment because of its emphasis on defence research, the counsellor is able to devote some of his time to covering important developments in civil science and technology and in science policy. These are reported in Ottawa Newsletter which, like the newsletters from the scientific counsellors in Bonn, Tokyo and Washington, is available on request.*

* From D.E.S., International Scientific Relations Division, Elisabeth House, 39, York Road, Waterloo, London S.E.1.

e. SCIENTIFIC AND TECHNICAL INFORMATION

39. During 1968 the Office for Scientific and Technical Information (OSTI) completed its initial period of rapid growth. Its annual vote for supported external projects rose from £370,000 in 1967-68 to £502,000 in 1968-69 (plus £214,000 for the Documentation Processing Centre) and the number of scientific staff rose to 17 at the end of 1968, (excluding 7 at the Centre).

Major Disciplinary Services

40. *Chemistry.* OSTI gives continued support to the Chemical Society Research Unit at Nottingham University, which is experimenting with computerised information services under development by the U.S. Chemical Abstracts Service. After the initial experimentation effort was put into evaluation studies, including a cost-recovery experiment in which the services were made more widely available at a charge covering the direct costs. Further experimental and educational work was carried out at universities by providing selected postgraduate students with a limited range of computer-based chemical information services. In return for this free service, they provided much valuable information on the existing use of information resources at postgraduate student level, and helped to evaluate the use of the new services. Late in 1968 this experiment was extended to cover a wider range of services from different sources. In this way the earlier results are being extended and amplified, alternative systems compared and several different means of liaison between the information systems and the users are being tested. Particular attention will be given, in an associated project, to chemical information services based on chemical compounds and chemical structures.

41. *Medicine.* Experimental operation of the MEDLARS system of medical information continued through the service provided by the National Lending Library for Science and Technology (N.L.L.S.T.) in co-operation with the Newcastle University Computing Laboratory. During 1968 1,996 searches of the medical literature were made by users of the service, which was operated without charge. Four MEDLARS liaison officers were appointed to discuss search requirements with users and to act as an interface between users and the system so that enquiries could be presented in an acceptable form. The MEDLARS system is based on computer magnetic tapes provided by the United States National Library of Medicine: in return, the United Kingdom will provide input to the system through the N.L.L.S.T. which also provides training courses in the use of the system. Close collaboration continues between the National Library of Medicine and the United Kingdom participants in exchanging information on, and experience of, the system.

42. *Physics and Electrotechnology.* Continued support was given to the Institution of Electrical Engineers for the development of INSPEC—a fully computerised information system in physics, electrotechnology and control. During 1968 development of the computerised system for producing *Science Abstracts and Current Papers* was completed and these journals will be produced by computer techniques as from January 1969. One key-boarding of the input data, including bibliographic references and indexing

heads, will be sufficient for the production of the printed abstracts and their indexes in conventional form, and it will also provide a data base which can be exploited in other ways. By using mechanised systems it is possible to organise international exchange of both input and output; collaboration along these lines is already established with comparable organisations in the United States and the Federal Republic of Germany, and will soon be extended to other countries.

Specialised Information Centres

43. OSTI has continued to support a number of specialised information centres: those covering biodeterioration, intestinal absorption, high-temperature processes, rock mechanics and ergonomics are being established as information analysis centres: in the case of mass spectrometry and crystallography the centres are associated with reference data activities referred to below. During 1968 increasing attention was paid to evaluating the services of these centres and to their operational efficiency. From experience already gathered it is intended that guide-lines for the establishment and evaluation of new centres will be made available to institutions that wish to set up centres of their own. Clearly interest in the concept of specialised information centres is growing throughout the world: OSTI support is at present concentrated on a small number of centres where research, experiment and evaluation can be carried out.

Reference Data Activities

44. Three data centres received financial assistance during 1968—mass spectrometry, crystallography and thermodynamic properties of gases—and assistance was being given to smaller programmes in gas chromatography and high-temperature processes. Many criteria for the support of specialised information centres also apply to reference data centres: additionally the United Kingdom data centres are regarded as a United Kingdom contribution to a world reference data system. Through membership of the British National Committee of Data for Science and Technology, and the link between the Committee and the International Council of Scientific Unions Committee on Data for Science and Technology (CODATA), OSTI keeps in close touch with the data activities in other countries, particularly the United States, to ensure that the United Kingdom effort is effectively co-ordinated with theirs.

45. The directory of *Critical Data Activities in Britain* issued in 1966–68 is under revision and will be re-issued early in 1969. Besides being a useful reference work for practising scientists and technologists in the United Kingdom, it will also act as the United Kingdom contribution to the world compendium of reference data activities that is being compiled as one of the initial tasks of the CODATA Office in Frankfurt.

Documentation Processing Centre

46. During 1968 there was a slow but steady building up of staff at the Centre. Its first general service activity was the processing of data for the Institution of Electrical Engineers' experiment in selective dissemination of information; more recently it commenced processing searches for the

MEDLARS service operated by the N.L.L.S.T. It also undertook support programming for experiments in formalisation of file rules for the classification of documents and for project control. Already the Centre is providing an expert consultancy service for new OSTI projects and is engaged on various aspects of standardisation that arise from the use of computers in information systems, particularly in the interchange of data between different systems. Finally the Centre is engaged on producing a set of guide-lines for the production of documentation for computer-based information-processing systems to enable the maximum use to be obtained from these systems by other potential users.

47. Various aspects of computer use are being investigated as the Centre's research programme builds up, in particular the input of large volumes of data to computer systems and the problems of output and of selection by users of the required forms of output. The Centre seeks to co-ordinate all these activities with those of other workers in related fields in order to avoid unnecessary duplication of effort.

Background Research

48. Work supported during 1968 laid particular emphasis on the evaluation of information retrieval systems. Two of the new projects are concerned with this problem; one involves a comparative study at the College of Librarianship, Wales, of several different systems and the development of a methodology for evaluation, while the other, at the College of Aeronautics, Cranfield, is a study of the variation between different expert assessments of output from an information retrieval system. In addition OSTI is supporting a project on the mechanised production of subject indexes, which is being conducted by the Postgraduate School of Librarianship and Information Science, Sheffield University; the first results are now being developed for practical use. A final new project, at the U.K. Atomic Energy Authority, involves a survey of the likely value to translators of a central computerized dictionary.

Social Science Information

49. The most fundamental project in this field is a comprehensive investigation into the information requirements of the social sciences, which is being carried out at the Bath University of Technology. During the year, however, OSTI continued to support and to consider further proposals for more detailed studies on information problems of individual social science areas of national importance. A grant was awarded for a survey, under the auspices of the Royal Statistical Society and the Library Association, of collections of economic statistics in the U.K. A project carried out at the British Institute of Management on the compilation of a thesaurus for management was completed and it is hoped that this thesaurus will be published in the near future.

50. In the field of education information, OSTI, in close consultation with the National Council for Educational Technology, is supporting a feasibility study for a multi-media catalogue of materials of all types used by teachers, whilst problems of terminology and subject retrieval are included in an investigation into the performance and future development of the journal *Sociology of Education Abstracts*.

51. *Ergonomics Abstracts*, previously issued by the Warren Spring Laboratory, was discontinued in 1968 and, after consultation with the Ministry of Technology and the Ergonomics Research Society, OSTI awarded a grant to the University of Birmingham to support the continuation of this multi-discipline journal and to build up a specialised information service in this field. The international scope of the service will be extended by co-operation with other countries.

52. Towards the end of the year OSTI sponsored a brief experimental current awareness service to selected users of social science material; it is based on index entries made available by the House of Commons Library and uses computer techniques originally developed for an OSTI-supported information service in plasma physics. The aim of this experiment is to test quickly and inexpensively the effectiveness of such techniques in handling a very different type of material. Users have been asked to assess the service in terms of their need for information; and the analysis of their response will assist future planning of social science information activities.

Education and Training

53. In conjunction with the National Lending Library for Science and Technology, OSTI ran courses for the staff of technical colleges aimed at improving instruction in the use of scientific literature and information services in these colleges. A course designed particularly for teachers in chemistry was so successful that it was run in three different places and attracted 77 people. A course was also run for librarians from large technical colleges who, in turn, are repeating it for librarians from other technical colleges within their local areas; this, too, was repeated because of the demand. A successful seminar on information services available to physicists was organised jointly by OSTI and the Institute of Physics/Physical Society. The education of users of the various OSTI supported mechanised services was advanced by the appointment of liaison officers; this is dealt with further in paragraphs 40-41.

54. OSTI continued to play its part in the development of first-degree courses in which information studies are combined with studies in the natural or social sciences or technology. It did so particularly through membership of the library board of the C.N.A.A. which during 1968 accepted three such courses within OSTI's field. The Committee on Short Courses in Librarianship and Information Work (of which OSTI supplies the secretariat) reviewed short-course provision: a *Directory of Short Courses* is now produced regularly to help those wishing to take short courses as well as those providing them. A major contribution to education and training for work in scientific and technological libraries and information departments was the publication of a report, under OSTI contract, by the Postgraduate School of Librarianship and Information Science at Sheffield University.

Library Automation

55. Following a successful first year of research into a machine-readable bibliographic-data service at the British National Bibliography (B.N.B.) OSTI awarded a grant for a further two years in support of the continued

development and operation of the service. It intends to establish a representative network of libraries experimenting with the use of B.N.B. tapes and of those resulting from a larger-scale project at the U.S. Library of Congress. OSTI continued to support research at the Bodleian Library aimed at exploitation of the B.N.B. data in machine-readable form and OSTI began to support a joint project between the university libraries at Southampton and Loughborough which seeks a total systems approach to the mechanisation of library clerical activities. Another co-operative research project—between the university libraries of Aston and Birmingham and the Birmingham Public Library—has been awarded a grant for a feasibility study on the application of centrally produced machine-readable records to local situations. Such co-operative projects will produce useful data on the possibilities of local and regional co-operation between libraries, especially with regard to handling catalogue records. Good progress was made by two projects (at the Scientific Periodicals Library, Cambridge and Newcastle University) that are concerned with testing alternative methods of converting retrospective catalogues into machine-readable form. They are already producing useful data on conversion problems.

Library Operational Studies

56. Management of library resources is a matter of increasing concern and the area known as “operational studies” is acquiring particular importance because it can assist librarians in making the decisions that are necessary for effective management of library resources and services. At Lancaster University an intensive systems analysis of the university library was carried out with OSTI support and a number of simulation “models” of library activities were created which could become the basis for library management decisions. At Durham University, OSTI is supporting a project aimed at deriving methods of evaluating cost-benefit ratios for university libraries. During the course of this study a methodology for social-benefit analysis was developed and this is being evaluated using data collected by surveys in the university libraries of Durham and Newcastle. During the year a three-year grant was awarded to Cambridge University to support the establishment of a research unit into problems of library management. Among areas for investigation in this field are the needs of library users and their approach to libraries, the effects of size and of different administrative structures in university libraries, the planning of buildings and questions of library management in terms of staff, operations, and services.

57. This will be the first time that a British university library has had the resources for co-ordinated and long-term enquiries into common problems; and it is planned that, concurrently with a study of Cambridge libraries, the unit's investigations should extend to other universities for purposes of comparison and to enable other environmental factors to be taken into account.

Library Surveys

58. The use of libraries and the part they play in the scientific and technical information network is a subject of considerable importance in view of the large resources involved, but it suffers from a lack of factual data. Without such data it is difficult, if not impossible, to obtain a clearer picture

of the relative contributions of the different parts of the library network and of the way in which they are, or can be, used. This factual knowledge is essential to OSTI in its attempts to improve the provision of library service for scientists and technologists; but it can also be of use to librarians in developing their own internal policies, for example in assessing the need for various services and in rationalising holdings. To this end a survey was completed during 1968 whose aim was to analyse the flow of requests and to obtain a picture of both the needs for inter-library loans and the relative parts played by the various channels used. Eight local areas were surveyed—from England, Scotland and Wales; four of the eight areas had formal co-operative schemes but the other four had not. Altogether 152 local organisations took part including industrial firms, public libraries, universities and other academic institutions.

Museum Information Studies

59. There is a growing interest in the use of computers for handling museum records and some of the problems raised are similar to those encountered in handling library records. The more efficient and more flexible handling of museum records will greatly improve the information resources available to researchers. At present OSTI supports at the Sedgwick Museum, Cambridge, a project to develop a general system for handling records. This system will be tested with a sample of the museum's catalogue and with a number of smaller collections of data associated with one or two large research projects in the Geology Department at Cambridge.

60. The information which is relevant to museum administration and technology is diffused over a very wide field and OSTI is supporting Leicester University's Department of Museum Studies a survey of the information resources and requirements in the museums field.

Publications

61. The Circulation of *OSTI Newsletter** increased substantially during the year and it is now widely used as a source of information about new information activities in Britain.

62. The 1967-68 edition of *Scientific Research in British Universities and Colleges†* was the second to include a volume on the social sciences, and there was a 30 per cent increase in the number of departments and other bodies whose research work was covered in the volume.

Co-operation at Home and Abroad

63. OSTI has continued to exercise a co-ordinating function and, as the range of its experimental projects widens, the scope for co-ordination widens as well and a higher proportion of staff time is spent on it. A good example is in library automation where the central project at the B.N.B. is linked with several local and specialised projects in an integrated programme which involves active co-operation between many different institutions. As the programme develops, it has an increasing effect on the approach of individual libraries and library authorities to problems of automation.

* Obtainable from OSTI, *gratis*.

† H.M.S.O. Vol. I Physical Sciences £2 5s. 0d.
Vol. II Biological Sciences £2 5s. 0d.
Vol. III Social Sciences £2 0s. 0d.

64. There has also been significant progress this year in the development of international co-operation on problems of scientific and technical information. Reference has been made in paragraph 42 to the wide expression of interest abroad in co-operation with INSPEC and so developing it quickly into an international service. Similar co-operation is developing with the U.S. MEDLARS and Chemical Abstracts systems following the successful bilateral arrangements which the responsible U.S. organisations have made with a small number of countries, including the U.K. Co-operation of this kind is being increasingly co-ordinated by the Information Policy Group of the O.E.C.D. and OSTI staff make a substantial contribution to the work of the Group and its specialist panels. The Group and its activities have acquired a new importance since O.E.C.D. Science Ministers at their meeting in March had a constructive discussion about information problems and made the following recommendations:—

1. Member countries should take appropriate steps within their respective governments to establish in each case a single high-level focus concerned with all national activity in the field of scientific and technical information.

2. O.E.C.D., among other activities, should as a matter of urgency, further develop its means for promoting co-operation and agreement in establishing comprehensive and compatible or convertible information systems, and make proposals to this end.

Advisory Committee for Scientific and Technical Information

65. Professor N. Kurti, F.R.S., Mr. J. Leicester and Dr. R. M. Lodge retired as members of this Committee on 30th September 1968, on completion of their periods of service. The Secretary of State made further appointments for the 1968–69 session so that the membership now consists of Dr. F. S. Dainton, F.R.S. (chairman), Dr. J. W. Barrett, Dr. G. M. Dyson, Mr. D. J. Foskett, Professor S. Gill, Professor S. P. Hutton, Professor H. C. Longuet-Higgins, F.R.S., Professor W. J. M. Mackenzie, Professor G. A. Smart, Dr. J. E. Smith, F.R.S., Mr. H. P. F. Swinnerton-Dyer, F.R.S., and Dr. W. F. Watson. Assessors from interested Government Departments and agencies have continued to attend meetings.

66. Early in 1968 the chairman circulated a paper from the Committee to vice-chancellors and principals on the role of universities and colleges in scientific and technical information; the response was most gratifying and, it is hoped, will lead to useful collaboration between universities and OSTI, particularly in stimulating effective use of the considerable resources often found in university and departmental libraries.

f. NATIONAL LENDING LIBRARY FOR SCIENCE AND TECHNOLOGY

67. The use of the Library has continued to increase and in 1968 the growth of demand on the loans service was greater in amount than in

any previous year, although the percentage increase fell. The following figures illustrate the position:

			<i>Total loan requests</i>	<i>Increase on previous year</i>	<i>Percentage increase on previous year</i>
1964	...	...	289,872	72,884	33.6
1965	...	...	375,616	85,744	29.6
1966	...	...	483,999	108,383	28.9
1967	...	...	591,496	107,497	22.2
1968	...	...	715,700	124,204	21.0

68. The issue of books (as distinct from periodicals) also increased sharply:

							<i>Number issued</i>
1966	...	...	...	...	...	...	22,234
1967	...	...	...	...	...	...	28,994
1968	...	...	...	...	...	...	42,300

69. There has been a substantial increase in demand from abroad photocopies, as the following figures show:

							<i>Number of requests</i>
1966	...	...	...	...	...	...	5,653
1967	...	...	...	...	...	...	10,460
1968	...	...	...	...	...	...	19,700

70. The growth in the input of literature increased. The following figures for the number of current periodicals received indicates the general position:

End of 1965	...	...	...	...	...	...	22,619
1966	...	...	...	...	...	...	26,289
1967	...	...	...	...	...	...	29,693
1968	...	...	...	...	...	...	31,904

71. During 1968 the Library ran 13 courses on the use of scientific literature. In addition, members of the staff took part in or organised courses elsewhere, including one demonstration course in the University of New South Wales in Sydney. Some of these courses were related especially to the computer-based medical literature retrieval service, MEDLARS (see paragraph 41). The number of questions received by this service increased from 1,460 in 1967 to 2,321 in 1968.

72. Following a decision by the European Nuclear Energy Agency that the Library should act as a European centre for atomic energy reporting, special equipment to make, copy and enlarge microfiche was provided.

73. Increased use is being made of the resources of the Library for bibliographical work. It is becoming responsible for indexing British medical literature as input to the MEDLARS system. The Commonwealth Bureau of Dairy Science and Technology at Shinfield has placed staff permanently at the Library to abstract some of the literature it receives for the new international *Food Science and Technology Abstracts*.

SECTION V

WALES AND MONMOUTHSHIRE

Introduction

1. This section deals with some specifically Welsh matters but should nevertheless be considered alongside the report as a whole. It begins by reviewing some key developments: new schools for Aber-fan children; the Gittins Report; the National Language Unit and other matters. This is followed by paragraphs dealing with developments in schools and the work of the Welsh Committee of the Schools Council; with further and higher education, libraries and the activities of the Welsh Joint Education Committee.

a. SOME KEY DEVELOPMENTS

New Schools for Aber-fan children

2. In September 1968 the new Ynysowen County Primary School at Aber-fan was taken into use. This school, situated in Aber-fan Park, and providing places for 480 pupils, was erected by the Merthyr Tydfil L.E.A. with a special building allocation from the Department of £157,000, to replace the Pant-Glas Junior and Infants School which was destroyed in the disaster of October 1966, and also the old Aber-fan Infants and the Merthyr Vale Primary Schools. The intake in September 1968, which was 355, included 86 of the former pupils of the Pant-Glas Primary School who survived the disaster. The school will reach its full complement in 1971. The staff of the new school included all the survivors of the Pant-Glas Junior and Infants School staff. It has been agreed that a nursery school for 80 pupils shall be built adjacent to the new primary school, and plans for this are in preparation.

3. In July the Secretary of State for Education and Science performed the official opening of the Afon-Taf High School in Troed-y-Rhiw, a short distance from Aber-fan. This is a new comprehensive school with 1,635 places, built at a cost of about £638,000 to replace secondary schools in this part of Merthyr Tydfil, amongst them the Pant-Glas Secondary Modern School, which was damaged in the disaster of 1966 and has since been demolished. The intake of the Afon-Taf School when it opened its doors in September 1967 included former pupils from the Pant-Glas Secondary School who had been temporarily accommodated in the Troed-y-Rhiw Secondary School.

Central Advisory Council for Education (Wales)

4. A summary of the main recommendations of the Report of the Central Advisory Council for Education (Wales) under the chairmanship of Professor Gittins, which was published in January 1968, was given in last year's report.*

* *Education and Science in 1967*, Section V, paragraphs 2-10.

This section deals with first steps towards implementation of the Report. Immediately after its publication the Education Office for Wales invited the comments of the local authority, teachers' and other associations concerned. These had all been received before the end of the year.

5. In the course of a debate on the Report in Welsh Grand Committee of the House of Commons on 29th May, the Secretary of State for Education and Science, while saying that he would need to await the comments of the associations before reaching final conclusions on some of the main recommendations, was able to give a preliminary indication of his views. Thus he generally endorsed the principle of bilingual education for Wales, and he announced his acceptance of a specific recommendation which the Report had made for action by his Department. This was that the Department should take the linguistic needs of schools in Wales into account in calculating the teacher quotas of L.E.A.s in Wales. Mr. Short announced that his Department would increase the teacher quotas of any Welsh authorities who asked for additional to enable them to carry out their linguistic policies more effectively. An addition of over 230 teachers in all was made to the quotas of Welsh authorities for this purpose during the course of the year.

6. The Secretary of State drew attention in his speech to a provision of the Education Act 1968 which, though it did not originate from the Report of the Central Advisory Council (Wales), would have the effect of safeguarding the linguistic character of schools in Wales which was one of the Report's recommendations. This Act required that Public Notices under Section 13 of the Education Act 1944 would need to be published in all cases where a significant change was proposed in the character and function of a school. It also gave the Secretary of State power to determine in any particular case whether a proposed change in the function of a school was a significant one for the purpose of the Act. Mr. Short said that he proposed to treat a change in the linguistic character of a school in Wales as significant in this context.

7. Mr. Short said that he did not accept the recommendations in the Report on religious education, namely that there should be a relaxation of the statutory requirements regarding religious instruction and the daily act of worship in schools. He made it clear that so long as he was Secretary of State there would be no change in the statutory requirements.

The National Language Unit, Treforest

8. Another development to which the Secretary of State referred in this debate as likely to make a major contribution to implementing the Report's recommendations on the Welsh language was the creation of a new National Language Unit at Treforest, Pontypridd. This Unit, set up by the Glamorgan L.E.A., under the auspices of the Welsh Joint Education Committee with the help of an allocation in a building programme from the Department, started work in the autumn. It comprises a language laboratory, control room, audio-visual room, practical rooms and a library. It will help to provide courses of in-service training for teaching Welsh and teaching in Welsh. Work started in the autumn at this Unit on the preparation of a four-year audio-visual course for teaching Welsh as a second language in junior schools. The first year of the course, comprising 30 film-strips and 30 tapes, together with

a teachers' handbook, will be ready for general use by September 1969. The Unit also started, in co-operation with the Welsh Committee of the Schools Council, on a pilot study for a research and development project in bilingual education in primary schools in predominantly English-speaking areas of Wales.

Progress of Secondary Reorganisation in Wales

9. During 1968 reorganisation schemes were approved by the Secretary of State for Pwllheli and Bangor in Caernarvonshire ; Wrexham in Denbighshire (long term scheme only) ; Penarth, Bridgend, Porthcawl, Barry and West Glamorgan (Gower/Llwchwr) areas of Glamorgan, also the Canton/Fairwater and Whitchurch/Rhiwbina areas of Cardiff. The schemes for the Church in Wales and Roman Catholic voluntary secondary schools in Cardiff were also approved. Reorganisation proposals have now been received from all L.E.A.s in Wales whose schools are still not reorganised, but there are still certain areas which are not covered by these proposals.

O and M Group (Wales)

10. A small group of H.M. Inspectors was set up in Wales in February to consider the problems which arise in the organisation and management of secondary schools. Special attention was given to the changes arising as a result of secondary reorganisation in which schools often operate in much larger units, sometimes in divided premises and sometimes in closer working relations with other schools, as in two-tier systems. Information has been collected about existing practices in schools in Wales and, through links with a similar group of H.M. Inspectors working in England, with comparable English situations.

11. In its work the group has made extensive use of a new technique of curriculum analysis which had previously been developed from work in secondary schools in north Wales. This system makes it possible for the resources available to a school to be assessed in quantitative terms and used for precise planning of the curriculum. It also provides a convenient and concise notation for discussing curriculum problems.

12. A promising development took place in September 1968 when a conference of about 40 heads and deputy heads of schools, with a few officers of L.E.A.s and members of the O and M group met for a week in Llandrindod Wells. The conference provided an opportunity for the detailed study of problems of school management through extensive use of case studies. This conference brought together, in small working groups, senior staff from schools, L.E.A. officers and H.M. Inspectors for a thorough and detailed study of selected cases. Throughout the conference the techniques of curriculum analysis were found specially useful and were used extensively by all the participants, including those who had had no previous experience of their application. It was decided that further conferences should be held in Llandrindod Wells in May and October 1969.

13. As part of its long term policy the O and M group expects to build up a body of knowledge and experience concerning school management which will be available to L.E.A.s and heads of schools who may be

entering new situations in the organisation of secondary schools. Attention will be given to the special problem in Wales of bilingual schools and also to the smaller rural comprehensive schools.

College of Librarianship, Wales

14. In October 40 students were admitted to the first year of the degree course in Library and Information Science instituted by the College of Librarianship, Wales, in conjunction with University College of Wales Aberystwyth. This is a joint honours degree course of three years' duration combining library science and one other academic subject chosen from the range available in the Faculties of Arts and of Science in University College, Aberystwyth.

b. THE SCHOOLS

School Population

15. In January 1968 the number of pupils in maintained primary and secondary schools was 464,066 (455,411 in 1967). Of these 181,488 were in secondary schools (178,304 in 1967) and 282,578 in primary schools (277,100 in 1967). The primary schools figure includes 24,564 children under 5 years of age (23,236 in 1967).

16. The four direct grant grammar schools in Wales had 1,736* pupils (1,710 in 1967), and the number of pupils in independent schools was 11,877 (12,858 in 1967).

Provision of New Schools

17. The major school building programme for Wales for 1968-69 was revised after the decision in January 1968 to defer the raising of the school leaving age to 1972-73. The revised programme included 19 primary and 18 secondary school projects at a total cost of £5.45m. These will provide 5,110 primary and 8,040 secondary places. In addition to this major programme a special allocation of £1m. was made for schools in educational priority areas. This is to be spread over the two years 1968-69 and 1969-70. It is expected that under this allocation 1,560 places will be provided in primary schools in 1968-69 and about 960 in 1969-70.

18. Buildings for 8,250 new school places were taken into use during 1968. Work valued at approximately £5.83m. was started.

19. At the end of September major primary and secondary school projects to the value of £9.36m. were under construction. These would provide 13,200 primary and 13,745 secondary places.

Closure of Schools

20. Thirty-four schools in Wales and Monmouthshire were closed during 1968, of which 12 were county secondary and 13 county primary schools. The remaining 9 were voluntary schools of which 7 were Church in Wales and 2 were Roman Catholic.

* Provisional figures.

21. Eight of the schools were closed because of low numbers, 11 on the opening of new schools and 15 as a result of reorganisation.

Supply of Teachers

22. In January 1968 there were 20,427 full-time teachers in maintained schools, excluding nursery and special schools (20,062 in 1967). The number of teachers fixed by quota for authorities in Wales for 1969-70 was 20,985 (19,685 for 1968-69). The average number of pupils per full-time teacher was 22.7 (as in 1967).

Voluntary Schools

23. There were 169 aided and 227 controlled voluntary schools in existence at the end of the year. Maintenance contributions under Section 102 of the Education Act 1944 amounted to £118,144 0s. 8d. Instalments of grant towards the cost of transferred and substituted schools totalled £29,800 14s. 6d. Instalments of grant in respect of schools for displaced pupils totalled £68,911 12s. 1d. Grants of £18,801 1s. 1d. were paid under Section 1(2) and (4) of the Education Act 1967 towards the cost of providing new schools and enlarging existing ones.

24. Roman Catholic voluntary schools received £232,497 16s. 7d. and Church in Wales schools £75,556 0s. 1d.

Independent Schools

25. During 1968 no fresh applications for registration under the provisions of Part III of the Education Act 1944 were received. Two registered schools closed and four schools recognised as efficient under Rules 16 closed. At the end of December 1968 there were 35 schools finally registered, one provisionally registered and 53 independent schools recognised as efficient under Rules 16. One registered school became recognised as efficient.

Welsh Committee of the Schools Council

26. This year, which was the fourth full year of its operations, was a particularly active one for the Welsh Committee of the Schools Council. In February it published *Educational Research in Wales*,* a survey of selected areas of research of particular relevance to Wales. The purpose of this booklet was to enable teachers to be more fully aware of what educational research has to offer and the ways in which such research can assist in the development of new syllabuses, methods and materials. In September the Council's studies of sixth form problems took a further step forward with the publication of Working Paper No. 20, *Sixth Form Examining Methods*,† the core of which is a critique, presented by the Welsh Committee, of present Advanced level examinations, together with radical suggestions for reform. Resulting from a decision by the Welsh Committee that there was need of a document dealing with problems posed particularly in schools with small sixth forms, this working paper focuses attention on such issues as the place of oral examinations, the account which might be taken of course work and the closer involvement of teachers in the examination process.

* H.M.S.O., 5s. 0d.

† H.M.S.O., 3s. 6d.

27. In May, the Welsh Committee set up a new sub-committee, the Science Sub-Committee, to act as a co-ordinating body in the field of school science education in Wales. This sub-committee includes representatives of the Welsh Joint Education Committee and its examinations committees; the membership contains an overall majority of practising teachers. The sub-committee took the view that one of its tasks should be the disseminating of information likely to be of interest to science teachers in Wales. Accordingly, in October the first in a series of *Science Bulletins* was published* and distributed free to schools in Wales. The first number contained notes on Schools Council science projects, on science centres now being established in the University Colleges of Wales and on in-service training courses in science currently being organised.

28. Following the Government's decision to introduce decimalisation and metrication from 1971, the Welsh Committee also published in October, with free distribution to schools in Wales, a pamphlet of guidance to teachers. Written in Welsh, the pamphlet, *Y Dull Deg*,* included also a short history of coinage in Wales.

29. In February, the Welsh Committee organised a two-day national conference to discuss its earlier publication, *Welsh—A Programme of Research and Development*.† This was followed in September by another national conference to discuss the Report of the Central Advisory Council for Education (Wales), *Primary Education in Wales*.§ Both conferences, which were held in Cardiff, were attended by about one hundred delegates, representing educational bodies in Wales. Their purpose was to provide a forum at which both publications could be studied in depth, and the ensuing exchange of views served to stimulate discussion among teachers and educational administrators. To further this end, the Committee proposes to publish the lectures and an account of the discussions at both conferences.

30. During the year work continued on the Council's research and development projects sponsored by the Welsh Committee. In the primary and secondary field these include the environmental studies project, based at Cartrefle College of Education, Wrexham; attitudes and motivation for the learning of English and Welsh, and compensatory education, both at the University College of Swansea; and in the secondary field, the project on social and cultural change and its implications for secondary education in Wales, at the Departments of Education and Sociology at the University College of South Wales and Monmouthshire, Cardiff. During 1968 two additional projects were started—the formation of scientific concepts by children aged 8–12 based on the University College of North Wales, Bangor and a pilot study, referred to above, on bilingualism in primary schools in predominantly English-speaking areas of Wales, based at the National Language Unit, Treforest.

* Free from Schools Council Welsh Committee, 31, Cathedral Road, Cardiff.

† H.M.S.O., 8s. 6d.

§ H.M.S.O., £1 12s. 6d.

C. FURTHER EDUCATION

31. As mentioned in the 1967 Report,* starts of further education building projects had to be restricted to ensure that expenditure did not exceed the authorised total for the financial year in question. In April 1968, details of the 1968-69 starts programme were announced. This programme included Welsh projects to a total value of nearly £1.3m. Later in the year, a similar restriction was made in regard to the 1969-70 starts programme. The value of Welsh projects in that programme amounted to £1.5m.

32. During the year a new procedure was announced for further education building programmes (see Section VI, paras. 40-42), and L.E.A.s were invited to submit proposals for the 1969-70 design list and for the preliminary list (that is, projects not intended to start before 1st April 1971).

Industrial Training

33. There was continued expansion in first-year integrated courses at colleges; the number of colleges and total enrolments for the 1968-69 session being as follows:—

<i>Training Board</i>		<i>Number of Colleges</i>	<i>Number of Students</i>
Engineering Industry		20	429
Electrical Supply (S.W.E.B.)		4	47
Construction Industry		5	114

Proposal for Welsh Polytechnic

34. The Glamorgan Education Authority were informed by the Department that the scheme submitted for the proposed Glamorgan polytechnic was acceptable in most respects and, subject to some amendments being agreed to, the Secretary of State would be prepared in due course to designate their proposed polytechnic in the following year.

Proposed Welsh National Agricultural College

35. During the year the Cardiganshire L.E.A. who had been invited by the Welsh Joint Education Committee to act as their agents in operating the proposed National Agricultural College, completed the constitution of the governing body for the College. In addition to representatives of the University Colleges of Aberystwyth and Bangor, this included representatives of the teachers' associations, the National Farmers Union and the Farmers Union of Wales, the Agricultural Workers, the National Federation of Young Farmers Clubs, the Welsh Agricultural Organisations Society, the Royal Welsh Agricultural Society and the Agricultural, Horticultural and Forestry Training Board. The first meeting of the governing body took place in December. Negotiations for the purchase of a site for the College adjacent to the College of Librarianship, Wales, in Llanbadarn Fawr, near Aberystwyth, were delayed owing to difficulties over the valuation of the site, and had not been completed by the end of the year. In December it was announced that Sir Percy Thomas and Sons had been appointed by the Cardiganshire

* *Education and Science in 1967*, Section VI, paragraph 43.

Authority as architects to plan the development of the campus which will include this College as well as the College of Librarianship, Wales.

Adult Education

36. Grants amounting to £119,277 for the academic session 1967-68 (compared with £113,789 for 1966-67) were made to the seven responsible bodies providing courses of liberal adult education in Wales. The grants took account of the costs of an average increase of about 6 per cent in the volume of part-time work, and also of additional full-time tutor posts for the University College of Wales, Aberystwyth and the University College of Swansea. The number of students attending courses was 25,853 in 1967-68 compared with 26,989 in 1966-67.

37. On 6th May a fire broke out at Coleg Harlech which completely destroyed the great hall and the lecture rooms and bedrooms below it. The fire was believed to have been due to an electrical fault which set curtains and wood panelling ablaze. The fire brigade succeeded in preventing the fire from spreading further into the building; but an irreparable loss was the wood carving which formed part of the panelling in the great hall. It was estimated that it might be two to three years before the destroyed area could be replaced with permanent buildings.

38. In June the Secretary of State, accompanied by the Minister of Statistics for Wales, laid the foundation stone for Coleg Harlech's new residential hall which it was hoped would be completed by May 1969.

Adult Welfare

39. Under the Physical Training and Recreation Act 1937, 18 offers of grant amounting to £32,506 were made during the year towards the costs of community centres and village halls, and 19 offers of grant totalling £39,452 towards playing fields and other sports projects. Offers of grant amounting to £12,550 were made to Welsh national voluntary organisations.

Youth Service in Wales

40. The Youth Service building programme for 1969-70 amounted to £270,000 and included 14 L.E.A. proposals for general youth clubs and 4 for voluntary youth clubs.

41. During the year 29 offers of grant totalling £68,501 were made under the Social and Physical Training Grant Regulations 1939, towards the provision of premises and equipment for youth clubs provided by voluntary organisations. Offers of grant totalling £28,820 were made to Welsh national voluntary youth organisations towards the cost of headquarters and administrative expenses.

Training of Teachers

42. During the early part of the year proposals submitted by maintaining authorities for the further expansion of the teacher training system were considered by the Department. In view of the rapid expansion that had already taken place, no further proposals for major expansion were approved.

for colleges of education in Wales. But a proposal from Glamorgan L.E.A. for the recruitment of older students and the provision of suitable training facilities at the Barry College of Education was accepted. Under this proposal, the premises of the former Weycock Cross Special School were to be converted to provide an annex to accommodate about 100 older mature students. This annex was expected to be available in the autumn of 1969.

43. Although no further major expansion of the teacher training system in Wales was envisaged, two major building projects totalling £350,000 were approved for the 1969-70 building programme, at the City of Cardiff College of Education and at Cartrefle College of Education, Wrexham. These projects covered the provision of additional accommodation at Cyncoed for the Cardiff College to replace the hutments at the Heath premises, when the lease expires in 1971, and the provision of some permanent teaching and hostel accommodation to replace some of the temporary hutments at Cartrefle.

44. In the 1967-68 session total student numbers in the nine Welsh colleges amounted to over 6,000, an increase of about 9 per cent on the total for 1966-67.

45. The colleges of education presented a total of 1,799 candidates for first examination by the University of Wales School of Education in the summer of 1968 and of these 1,731 (96·2 per cent) qualified for the teacher's certificate. The comparable figures for 1967 were 1,606 presented, 1,518 (94·5 per cent) qualified. Eighty-three ex-students who had failed to qualify in previous years were re-examined in one or more subjects and 55 succeeded in completing the requirements for the certificate. A total of 2,418 students (2,141 in 1967) were recommended to the Department for recognition as qualified teachers; these figures included 38 from the colleges of art and 594 from the university departments of education.

46. Four supplementary courses were provided during the 1967-68 session. These were attended by 62 students: 8 for physical education (men), 10 for arts and crafts and 44 for teaching handicapped pupils.

47. During the 1967-68 session the collegiate faculties of education organised 138 refresher courses, lectures and conferences for serving teachers and others (146 in 1966-67).

48. On the recommendation of the Universities' Council for the Education of Teachers, the University of Wales School of Education resolved to abandon the titles teacher's certificate, art teacher's diploma and diploma in education (the postgraduate award for professional training). In the interests of uniformity of nomenclature with other Area Training Organisations, the University of Wales is in future to award a certificate in education, an art teacher's certificate and a postgraduate certificate in education.

49. There were 358 candidates for the certificate of proficiency in bilingual teaching of whom 316 were successful; 42 receiving form one of the certificate for proficiency in teaching Welsh and English as second languages, no one receiving form two of the certificate, for proficiency only

in teaching through the medium of Welsh, and the remaining 274 receiving form three of the certificate, for proficiency both in teaching Welsh and teaching through the medium of Welsh.

50. During the 1967-68 session, the University of Wales Faculty of Education's Standing Committee on Teaching Practice considered the estimate of practice places available and required in 1968-69. From the information available it was concluded that existing arrangements would suffice for the present, but that a fresh review would be necessary for the next session.

51. As mentioned in the 1967 Report,* courses for part I of the B.Ed. degree started during the 1967-68 session. Of the 78 candidates who took the appropriate examination, 47 achieved the necessary standard to proceed to part II. Schemes of study in art and drama submitted by various colleges in Wales received university approval.

52. The University of Wales Faculty of Education concerned itself with the possible revision of the college of education course in the light of the Gittins and Plowden Reports. No conclusions had been reached by the end of the year: the Faculty were awaiting reports from the Collegiate Faculties of Education before taking any further action.

53. As a particular arrangement designed to meet the needs of Wales the Department accepted a proposal submitted jointly by the University College of South Wales and Monmouthshire and the University of Wales Institute of Science and Technology for a scheme of technical teacher training leading to a postgraduate certificate in technical education. Students who will be graduates or equivalent, will be enrolled with University Department of Education, while the tuition will be shared between the two institutions.

d. LIBRARY ADVISORY COUNCIL (WALES)

54. After receiving a report by a working party which it had set up on the provision of Welsh books the Council submitted a report on this subject for the consideration of the Secretary of State for Education and Science and the Secretary of State for Wales. The report included recommendations on the desirable annual production of children's and of adult books in Welsh and the steps necessary to achieve this output.

55. At the request of the National Libraries Committee the Council submitted its views on the organisation of a national library service generally and on the role of the National Library of Wales.

56. The Council considered a report on arrangements for library co-operation in Wales prepared by the Department and asked that the attention of the National Executive Committee of the Regional Libraries Scheme for Wales and Monmouthshire should be drawn to certain of the recommendations. These recommendations dealt with the organisation and maintenance of the union catalogues at Aberystwyth and Cardiff and the procedure used in

* *Education and Science in 1967*, Section V, paragraph 45.

inter-lending. The Council also set up a sub-committee to consider arrangements for making books in Welsh available to libraries in England with Welsh readers.

57. The White Paper *Local Government in Wales** was considered and in particular paragraph 32 which mentions library powers. The Council took the view that it would not be in the best interests of the library service in Wales to allow all the new county districts to claim library powers as of right. An arrangement of the kind proposed in the White Paper was favoured by the Council. This would permit county districts of a certain size and character to put a case to exercise library powers to the Secretary of State for Education and Science.

Public Library Authorities

(i) Financial statistics

58. The figures collected by the Institute of Municipal Treasurers and Accountants and the Society of County Treasurers showed that for Wales alone the total net expenditure on public libraries in 1967-68 was £1.77m. compared with £1.55m. in 1966-67.

(ii) Capital Investment

59. Loan sanctions to the value of £377,000 issued in the financial year 1967-68 enabled work to start on ten new branch libraries and on the new county library headquarters in Flintshire and Pembrokeshire.

(iii) Visits by Library Advisers

60. The report on the inspection by one of the Department's library advisers of the Monmouthshire County Library Service was sent to the County Council in June.

61. A visit was paid to Llandudno in October, at the invitation of the authority, to study the problem of book storage, and the opportunity was taken to discuss the general question of co-operative book provision in small libraries with librarians of the North Wales Urban Libraries Group.

e. WELSH JOINT EDUCATION COMMITTEE

62. In 1960 the Joint Committee, in conjunction with the National Foundation for Educational Research, began a survey of the abilities and attainments of the children in Wales. The aims of the survey were as follows:—

- (i) to estimate average levels and ranges of attainment in reading and arithmetic for the three age groups 7+, 10+ and 14+ in order to discover what were the existing standards and to provide a basis for future comparison ;
- (ii) to determine the amount of backwardness in each age group and to estimate how much of this backwardness was due to genuine retardation and to a variety of other factors and how much was attributable to low general ability as measured by a non-verbal test of intelligence ;
- (iii) to compare the levels of attainment of boys and girls and of children attending schools of various types (e.g. mixed, single-sex, all-age, and denominational) situated in urban and rural areas.

* Cmnd. 3340, H.M.S.O., 4s. 0d.

63. The Education Office for Wales and the education departments of the University Colleges of Aberystwyth and Bangor participated in the survey, which was backed by the statistical resources of the N.F.E.R.

64. The Joint Committee, in conjunction with the Department, organised six one-day conferences for teachers in establishments of further education on the philosophy and structure of existing and proposed schemes of study and on the new approach to the treatment of subjects included in the schemes. Four short residential courses were organised: three for teachers and organisers concerned with agricultural and horticultural education, and one for industrialists concerned with fuel technology.

65. During the year the Joint Committee's two-year scheme of tutor training for part-time youth leaders courses was completed. This has involved all Welsh authorities and ensures that the basic training provided by all the agencies will have common elements and methods. For a number of years Wales has been linked with Baden-Württemberg. In order to promote youth exchanges between Wales and Baden-Württemberg the Joint Committee arranged for Further Education and Youth Service Officers to attend a conference with their German counterparts in Stuttgart in April 1968. The Co-ordination Committee for Adult Education, which the Committee administers jointly with the University of Wales, arranged a conference for representatives of L.E.A.s and responsible bodies in Wales to consider schemes of training part-time tutors in adult education.

SECTION VI

FINANCE AND GENERAL

Introduction

1. This final section gathers together matters which in various ways are common to the education service as a whole. It begins with a survey of public expenditure on education, developments in respect of teachers' salaries and superannuation, student support and educational building. A general section deals with educational research and technology, highly qualified manpower, automatic data processing, statistics, and the Department's library and information services. The section concludes with a review of educational and cultural contacts in the international field.

1. Finance

a. PUBLIC EXPENDITURE

2. In 1967-68 public expenditure on education in Great Britain was £2,012m., compared with £733m. ten years earlier. The main items are as follows :—

TABLE 20.—*Summary of public authorities' educational expenditure*

	£ million		
	Current	Capital	Total
<i>England and Wales</i>			
Local Education Authorities	1,315·4(1)	203·9(2)	1,519·3
Department of Education and Science...	39·2	21·9	61·1
<i>Scotland</i>			
Education Authorities	141·0(1)	28·6(2)	169·6
Education Department	23·6	5·0	28·6
<i>University Grants Committee</i>			
In England and Wales	130·7	68·3	199·0
In Scotland	21·6	13·2	34·8
<i>Total</i>			
England and Wales	1,485·3	294·1	1,779·4
Scotland	186·2	46·8	233·0
Total Great Britain	1,671·5	340·9	2,012·4

(1) Including loan charges of £132·1m. in England and Wales and £17·2m. in Scotland.

(2) From revenue and loans.

The above figures exclude expenditure of £123·6m. (£112·4m. current and £11·2m. capital) on school meals and milk in Great Britain.

The Department's Votes

3. Table 21 includes expenditure and receipts for all the education votes for which the Department has accounting responsibility.

TABLE 21.—*Expenditure and Receipts on the Department's Votes*

Expenditure	£ million		Remarks
	1967-68 (gross)	1968-69 (gross estimate)	
1 Administration	8.4	8.5	Mainly school meals and milk. Includes loans to voluntary schools.
2. Grants to LEAs	8.1	1.5	
3. Grants to other bodies ...	53.1	59.8	
4. University Awards	1.0	1.1	
5. Universities and Colleges ...	235.3	245.2	
6. Teachers' Superannuation...	65.0	71.2	
	370.9	387.3	
7. Receipts	90.8	96.3	Mainly superannuation contributions from teachers and their employers.

4. The grants to L.E.A.s for school meals and milk included in the above table are in respect of authorities' expenditure on these services before 1st April 1967. The increase in 1968-69 in grants to other bodies included an additional £3.2m. for grants and loans to voluntary schools, an increase of £2.5m. for teacher training and an increase of about £0.5m. for social and recreational education.

Expenditure by Local Education Authorities

5. The current expenditure of L.E.A.s on education services in England and Wales in the financial year 1967-68, excluding expenditure on school meals and milk but including £17.0m. capital expenditure from revenue, increased to £1,332m. compared with £1,210m. in 1966-67. This increase of £122m. (10 per cent) was due in part to rises in costs—principally an increase in teachers' salaries and wage awards for local authority manual workers and building and civil engineering workers—but also to increased demand and expansion of the service. The biggest increases occurred in the training of teachers (20 per cent), in the youth service (16 per cent) and in further education, including awards to students (12 per cent). The cost of the provision of primary and secondary education rose by about 9 per cent. An increase of 11 per cent in loan charges indicated continued progress with the provision of new or improved buildings and equipment.

6. This local authority expenditure was assisted by the Exchequer through the rate support grants paid by the Ministry of Housing and Local Government under the Local Government Act 1966. The rate support grants for 1967-68 were based on estimates of local authority expenditure which included £1,431m. for education, including school meals and milk, after allowing for increases in pay and prices up to the autumn of 1967. The

comparable figure for 1968-69 was £1,517m. and in January the Government made it clear that local authorities would be expected to absorb any further unavoidable increases in costs by making savings elsewhere.*

7. In January it was also announced* that in the autumn the Government would propose rate support grants for 1969-70 on the basis that in that year local authorities as a whole would restrain the level of their expenditure so that it did not in total exceed a figure in the region of 3 per cent in real terms above what had already been agreed for purposes of rate support grant in 1968-69. Following negotiations with the local authorities the totals of rate support grants were fixed at £1,528m. and £1,633m. for 1969-70 and 1970-71 respectively and of these totals the needs elements were £1,230m. and £1,297m. In determining the total grants the Government took into account estimated expenditure of £1,613m. and £1,677m. on the education service, including school meals and milk.

Inter-Authority Payments

8. Under the chairmanship of the Department's Accountant General, the Local Education Authorities Committee on Inter-Authority Payments† advises on recoupment and recommends the rates to be used for inter-authority adjustments. Tables 22 and 23 show the rates which were recommended for 1968-69 and previous years.

TABLE 22.—*Costs per pupil*

(For adjustments in respect of primary and secondary school pupils living in one area and educated in another)

	Financial Year			
	1965-66	1966-67	1967-68	1968-69
	£	£	£	£
Primary pupil	80	83	89	94
Secondary pupil aged under 16 ...	140	150	164	176
Secondary pupil aged 16 or over ...	280	260	289	283

TABLE 23.—*Costs per student hour*

(for recoupment payments for further education)

	Academic Year		
	1965-66	1966-67	1967-68
<i>Establishments of Further Education</i>			
School level work	5s. 3d.	5s. 4d.	5s. 7d.
Intermediate level work	6s. 11d.	7s. 0d.	7s. 4d.
Advanced level work	12s. 9d.	13s. 0d.	13s. 6d.
<i>Agricultural Institutes</i>			
Boarding	£167 per year	£157 per year	£167 per year
Tuition (a)	£431 per year	£439 per year	£462 per year
or (b)	6s. 10d.	6s. 11d.	7s. 3d.

* *Public Expenditure in 1968-69 and 1969-70*, Cmnd. 3515, H.M.S.O., 1s. 9d.

† Acting under section 6 of the Education (Miscellaneous Provisions) Act 1948, for primary and secondary education, and under section 7 of the Education (Miscellaneous Provisions) Act 1953, for further education.

Cost Investigation Unit

9. It has not proved possible, up to the present time, to recruit suitably qualified and experienced accountants to fill the two vacant professional posts in the Unit's establishment. Despite this, during the year the Unit examined the costs and management of a number of educational establishments. The object of these investigations was to suggest improvements in methods, procedures and organisations that would enable the work of the establishment to be carried out as efficiently and economically as possible within the available resources for the purpose and in ways compatible with its stated objectives and standards. In many cases, it was possible to recommend improved methods of administration, management or organisation that would result in increased efficiency, better use of available resources and greater value for the money being spent.

10. Many requests for advice and assistance on a wide range of problems were received during the year from a variety of sources, including the various branches of the Department and authorities and bodies responsible for educational establishments. These enquiries show that increasing attention is being given to problems associated with the achievement of maximum efficiency and economy in educational organisations and activities. They also show the value of a unit of this type that, with its wider experience and expertise, can assist those directly responsible to attain their objectives.

b. TEACHERS' SALARIES AND SUPERANNUATION

Primary and Secondary Schools

11. Early in the year the Burnham Primary and Secondary Committee agreed to recommendations of a working party, set up after arbitration in 1967, which provided for salary additions (of £75 a year for qualified teachers) in schools of exceptional difficulty, and for revision of the unit total system for special schools. These agreements were given effect by the Remuneration of Teachers (Primary and Secondary Schools) Amending Order 1968.* In January 1969 the Secretary of State formally recognised some 570 schools for the purposes of the salary addition payable from 1st April 1968.

12. In July, the Committee met and agreed salary changes consequent upon the report of the working party on unqualified teachers (see Section II paragraph 26). The Committee also considered changes in the London area payment. They agreed that a single rate should continue covering an unchanged area, but failed to agree on the amount and the effective date of any change. These two matters were therefore referred to arbitrators who in September recommended that the payment should be increased from £70 to £85 per annum as from 1st November 1967. The Remuneration of Teachers (Primary and Secondary Schools) Amendment No. 2 Order 1968† gave effect to this recommendation and to the agreed changes in relation to unqualified teachers.

13. At a meeting of the Committee on 18th October a new round of negotiations started with the presentation by the teachers of a claim for

* S.I. 1968, No. 375, H.M.S.O., 10d.

† S.I. 1968, No. 1799, H.M.S.O., 9d.

increases in salaries to take effect on 1st April 1969. The teachers claimed improvements to the basic scales and proportionate increases for senior posts at an estimated additional cost of £100m., or $21\frac{1}{2}$ per cent. On 15th November the Committee agreed, as part of the 1969 settlement, changes in the unit total system which determines headteachers' salaries and responsibility payments to other teachers, so as to improve the relative salary position of primary school teachers. The Committee continued negotiations when it met again on 6th December.

Further Education

14. The arbitration award referred to in the 1967 report* was received early in January. This added about £5 $\frac{1}{4}$ m. or $7\frac{1}{4}$ per cent to the annual cost, then £72m., of the salaries of full-time teachers. With minor modifications agreed by the Burnham Further Education Committee the award was given effect by the Remuneration of Teachers (Further Education) Order 1968.†

15. The Committee met again in October following publication of the arbitrators' award on the payment of teachers in primary and secondary schools in the London area, and agreed that the terms of the award should be applied to teachers in establishments for further education. Effect was given to the agreement by the Remuneration of Teachers (Further Education) (Amendment) Order 1968.‡

Farm Institutes

16. The Burnham Farm Institutes Committee met in January and agreed upon new salary scales to apply from 1st July 1967 to 31st March 1969. These represented an overall increase of about $7\frac{1}{4}$ per cent. The Committee also agreed to set up a working party to consider the structure of the salaries applicable for farm institutes. The Remuneration of Teachers (Farm Institutes) Order 1968§ gave effect to the agreement on salaries.

Colleges of Education

17. The Pelham Committee agreed in October, and the Secretary of State approved, that the London area payment should be increased to £85 per annum as from 1st November 1967 in line with that at other types of institution.

Teachers' Superannuation Regulations

18. During 1966 and 1967 teachers' superannuation legislation was recast in the form of a comprehensive set of regulations, family benefits were introduced and arrangements made for part-time teachers. During 1968 concern was mainly with the development and adjustment of these new measures and the bringing into operation on 1st September|| of further amendments to the regulations of 1967. These made a number of changes of which one deserves special mention.

* *Education and Science in 1967*, Section VI, paragraph 17.

† S.I. 1968, No. 197, H.M.S.O., 6d.

‡ S.I. 1968, No. 1798, H.M.S.O., 6d.

§ S.I. 1968, No. 345, H.M.S.O., 6d.

|| S.I. 1968, No. 1353, H.M.S.O., 9d.

19. Before the Teachers' Superannuation Regulations came into operation on 1st April 1967, exemption from teachers' superannuation had been freely available to teachers entering the service of L.E.A.s from other local government employment. The arrangement had been introduced in 1945, but was omitted from the 1967 Regulations because its purpose was now served by more recently established provisions for interchange of rights between the teachers' and local government superannuation schemes. The 1967 Regulations enabled teachers already subject to local government superannuation on 31st March 1967, to remain so while continuing to hold the post they then occupied, but required them to come under the teachers' scheme upon any subsequent change to other pensionable teaching employment; their pensionable local government service could then be transferred. In practice, however, this arrangement proved to have drawbacks, notably that the right of certain long serving staff to contribute to local government at a specially favourable rate could not be continued when they joined the teachers' scheme. The Secretary of State therefore restored the 1945 arrangements in a modified form. Those who were subject as teachers to the local government scheme immediately before 1st April 1967 may now remain indefinitely outside the teachers' scheme when they transfer to other teaching posts under L.E.A.s. Teachers who lost this right through changing their employment between 1st April 1967 and 31st August 1968, may elect to resume local government superannuation.

Financing of Teachers' Superannuation Scheme

20. An important change in the financial basis of the superannuation scheme was brought about in December by the Teachers' Superannuation Account (Rates of Interest) Regulations.* Their purpose is described in the 1967 Report.† The Regulations provide for rates of interest on different parts of the balance in the account to be determined by reference to the yield from Government securities selected by the Secretary of State upon the advice of the Government Actuary.

Interchange Rules

21. In July the Secretary of State, jointly with the Secretary of State for Scotland, made the Superannuation (English Teaching and Scottish Local Government) Interchange Rules,‡ to provide for the first time for transfer of pension rights on changes of employment between local government service in Scotland and teaching in England or Wales. In September the Superannuation (Teaching and Public Transport Services) Interchange Rules§ provided for transfer of pension rights on changes of employment between teachers and nationalised railway and road transport undertakings. Arrangements for interchange between the teachers' superannuation scheme and staff schemes in nationalised industries and various other public undertakings were brought up to date in July by the Superannuation (Teaching and Public Boards) Interchange Rules.|| Other revisions of the existing interchange rules were being prepared at the end of the year.

* S.I. 1968, No. 1944, H.M.S.O., 1s. 0d.

† *Education and Science in 1967*, Section VI, paragraph 26.

‡ S.I. 1968, No. 1210, H.M.S.O., 2s. 0d.

§ S.I. 1968, No. 1470, H.M.S.O., 1s. 9d.

|| S.I. 1968, No. 1120, H.M.S.O., 1s. 9d.

Family Benefits Scheme

22. The second set of amendments to the Teachers' Superannuation (Family Benefits) Regulations* which came into operation on 10th December gave effect to recommendations of the Board of Management of the teachers' family benefits fund. The provision which put a limit of one-half upon the proportion of the fund able to be invested in preference, preferred or ordinary stocks or shares was replaced by provision allowing three-quarters of the assets to be invested in these wide range securities, and the new Regulations authorise limited investment in property and in overseas stocks. Since the Board has not appointed trustees as was originally envisaged, changes were made also in certain provisions relating to management of the fund and to the Secretary of State's liability for payment of administrative expenses. These changes are to cover the system of investment management actually adopted (and described in the 1967 Report†). Increased rates, reflecting the general increase of teachers' salaries on 1st July 1967, were laid down for the minimum widows' pension and flat-rate benefits provided under the widows' and children's scheme in respect of teachers who die in service or who retire on or after December.

Part-time Teachers

23. During the year 7,025 regular part-time and relief teachers employed in primary and secondary schools were accepted into the optional superannuation arrangements introduced by the Teachers' (Part-time) Superannuation Regulations 1967.‡ This increased the total number of elections accepted to 15,154. The working party set up in 1965 on superannuation arrangements for part-time teachers continued the second stage of their work. They considered in detail a number of proposals for part-time teachers in other sections of the education service, but had not reached firm conclusions by the end of the year.

Dispersal

24. Under the government's dispersal policy a phased move of the staff administering teachers' superannuation began at the beginning of April. By the end of the year about half the work previously done at Stanmore had been dispersed to Darlington. The work of one territorial division of teachers' salaries and qualifications branch, dealing mainly with the northern half of the country, was dispersed to Darlington during the year.

C. STUDENT SUPPORT

Overall Numbers

25. The increase shown in recent years in the number of awards made from all public sources—L.E.A.s, the research councils and government departments—continued in 1966–67. The number of first degree and lower student awards for further education in Great Britain rose from 291,671 in the previous academic year to 329,959 while the cost increased from £93.3m. to £107.4m. The provisional corresponding figures for 1967–68 were 367,000 and £121.4m. respectively.

* S.I. 1968, No. 1914, H.M.S.O., 1s.

† *Education and Science in 1967* Section VI, paragraph 29.

‡ S.I. 1967, No. 1286, H.M.S.O., 10d.

26. The number of postgraduate awards made in 1966-67 was 17,187 at a cost of £8.5m. Provisional figures for 1967-68 were 18,000 and £9.4m respectively.

27. These figures include the students assisted under the teacher training grant arrangements to follow full-time courses of initial training at graduate and non-graduate levels.

Local Education Authority Awards

28. The Advisory Panel on Student Maintenance Grants submitted their Report* to Ministers in February 1968. Their recommendations on the changes necessary to maintain the real value of awards were not accepted in full, because of the limitations which had been set on public expenditure. But the following changes in the grant arrangements for undergraduate and equivalent students came into effect from September 1968.

29. The basic grant was increased by £25 to £395 in London and at Oxford and Cambridge Universities, and by £20 to £360 elsewhere. For students living at home the increase was by £15 to £290 and for those resident at colleges of education in England and Wales by £7 to £163.

30. All the supplementary grants and allowances, paid in respect of dependants and for a variety of different reasons, were, with some slight adjustments, increased by the full amounts recommended by the Advisory Panel. There were also improved grants for certain widows and divorcees and separated wives, while the grants for part-time teacher training students were increased by £90 to £180 for day students and by £70 to £100 for evening students.

31. The scale of parental contributions was revised, and the starting point was raised from £700 to £900 residual income.

32. Details of the revised grant arrangements were set out in Administrative Memorandum 7/68 of May 1968. Subsequently the University and Other Awards (Amendment) Regulations 1968† and Circular 21/68, which superseded Circular 18/66, enabled the L.E.A.s and university departments of education to give effect to the new rates.

Postgraduate Rates

33. Rates of grant for postgraduate studentships awarded by the Education Departments and Research Councils were also increased from September 1968 as follows:—

(a) students living in college, hall or lodgings: from £500 to £530 per annum;

(b) students living at home: from £380 to £410 per annum.

Dependants' allowances were approved at the full rate recommended for undergraduates by the Advisory Panel on Student Maintenance Grants.

Postgraduate Studentships

34. State studentships were again offered for courses lasting not more than one year, and major state studentships for courses lasting for more than

* H.M.S.O., 2s. 6d.

† S.I. 1968, No. 1296, H.M.S.O., 1s. 0d.

one year but not exceeding three years. Both categories of studentships were available for courses in the humanities leading to a higher degree or to a postgraduate diploma or certificate, but excluding in the latter case courses mainly professional or vocational in character.

35. During the summer, the Studentship Selection Committee, composed of senior members of academic staffs of universities in England and Wales, under the chairmanship of Dr. A. E. Sloman, Vice-Chancellor of Essex University, reviewed 1,412 applications for major state studentships and 825 for state studentships (of which 82 and 4 respectively were within the field covered by the Hayter Report,* and 41 and 11 respectively were within the field covered by the Parry Report†). The results were announced in stages as degree results became known. Awards were offered to 830 candidates (595 major and 235 state studentships). The number of major state studentships accepted was 548, and of state studentships, 202. Thirty-four of the successful candidates (27 and 7 respectively from each category) were allowed to postpone their studentships for one year.

State Scholarships

36. The number of state scholars at universities in Great Britain declined to 109, the majority of whom are medical students. It is expected that all holders of state scholarships will have completed their courses in 1972.

Mature State Scholarships

37. Thirty scholarships for mature students were available in 1968 and 24 were awarded. These scholarships are awarded for courses in liberal studies and are available to men and women over the age of 25 who for a variety of reasons were unable to take a university course at the normal age. Applications were received from 99 men and 27 women, all of whom were able to show evidence of continuous study since leaving school, either by attendance at Workers' Educational Association or university extra-mural classes or at full-time residential colleges for adult education, or by various other means of study including correspondence courses. Among this year's successful candidates were a housewife, a political secretary, a bank-clerk, a sheet-metal worker and a glazier.

38. Since the scheme began in 1947, 581 scholarships have been awarded, 465 to men and 116 to women. Of the 448 students who have so far completed their courses, 396 gained honours degrees, 46 of them with first-class honours.

Transfer of Responsibility for Postgraduate Awards

39. Towards the end of the year the Secretary of State announced that arrangements were being made, in agreement with the local authority associations, for the central government to take over from the L.E.A.s responsibility for new awards to postgraduate students from the academic year 1969-70 onwards; and that discussions were being held with the Departments concerned and with the Research Councils on the division of responsibility for making such awards. He said that in due course the Education Act 1962 would be amended to remove the L.E.A.s' power to make awards for courses for which central government accepted responsibility.

* *Report of the Sub-committee on Oriental, Slavonic, East European and African Studies.* H.M.S.O. 6s. 6d.

† *Report of the Committee on Latin American Studies.* H.M.S.O. 7s.

d. EDUCATIONAL BUILDING

Educational Building Programmes—Circular 13/68

40. It became clear before the beginning of the year that the system of annual building programmes, introduced in the early post-war years, needed review. Its least satisfactory feature was the inherent contradiction between the aim of giving L.E.A.s adequate notice of the programme to allow the stages of design and planning to be completed, and the need to make adjustments at a late stage to meet changes in circumstances.

41. The reconstruction of school building programmes for 1968–69 and subsequent years necessitated by the decision to defer raising the school leaving age gave an opportunity to introduce a system of programming more closely related to the actual progress of projects through the stages of planning in local authority offices.

42. The system adopted, after consultation with the local authority associations, followed the model used in some other sectors of public investment. Lists of projects covering a period several years ahead are agreed in general terms and are extended from time to time as individual projects progress through the design stages into the construction phases. Circular 13/68 described in detail the three stages used for identification. Projects progress from the “preliminary list”, looking some years ahead, through the “design list” to the “starts programme” which represents a firm programme of projects to be started in the ensuing year. The new style of programming is being applied in the first instance only to the major programmes for schools and further education projects.

Building Progress

43. The figures for 1968 and the three previous years are as follows:—

TABLE 24.—*Educational Building 1965–68**

	Value of projects started in:—				Value of projects completed in:—				Value of work under construction at end of 1968
	1965	1966	1967	1968	1965	1966	1967	1968	
<i>Major projects:—</i>									
Primary and Secondary Schools ...	58.8	77.9	103.6	93.3	70.9	63.6	81.8	90.9	147.1
Further Education ...	10.4	17.1	33.7	17.9	11.2	18.4	18.6	14.0	50.9
Colleges of Education	6.2	6.6	5.3	6.5	8.7	7.9	5.5	8.7	7.8
Special Schools and school health projects ...	3.1	4.5	4.5	4.2	2.7	2.7	4.9	5.3	5.5
Total ...	78.5	106.1	147.1	120.9	93.5	92.6	110.8	118.9	211.3
Other projects ...	28.5	29.7	34.8	35.0	28.3	27.9	32.6	34.2	15.1
All projects ...	107.0	135.8	181.9	155.9	121.8	120.5	143.4	153.1	226.4

* The figures do not include site purchase, professional fees, or the cost of furniture and equipment.

44. The target value of projects in the schools major building programme to be started in 1967–68 was £100m. compared with £87m. achieved in 1966–67. In the event economy measures announced in January 1968 impressed L.E.A.s with the need to start as many projects as possible :

the financial year. As a result the value reached £121·6m., exceeding the target by £21·6m. The target for starts for 1968–69 is £94·5m., against which the 1967–68 excess will be the first charge.

Minor Works

45. The allocations for minor works for 1969–70, totalling £27·5m., were announced in November. Additional minor work projects to the value of £2·7m. will be undertaken in educational priority areas and to the value of £0·8m. for the relief of winter unemployment.

Building Productivity Group

46. Work continued on the development of a new partition in collaboration with the South Eastern Architects' Collaboration (SEAC), the Second Consortium of Local Authorities (SCOLA), the Consortium for Method Building (C.M.B.) and the manufacturers.

47. A programme of work to establish common component performance standards for educational buildings was started in May, in anticipation of the metric change. All the consortia are co-operating in this work, with different consortia sponsoring the different functional groups of components. The Department is responsible for the internal subdivision and furniture and equipment groups. It is hoped that performance specifications will be available for use by the middle of next year.

48. A full size demonstration rig for use in establishing assembly conventions for components was designed and is about to be constructed at the Building Research Station. This work is seen as a corollary to the recent bulletin *The Co-ordination of Components for Educational Buildings** and should have an important bearing on the common performance standard programme.

49. Other work undertaken during the year included advice on protection against aircraft noise in schools, collection and analysis of site manpower statistics and the development of standard contract procedures.

Development Projects

50. Building work on the Delf Hill Middle School, Bradford, continued.† It is now nearing completion and will be occupied early in 1969.

51. Many hundreds of visitors were received by the Headmistress and pupils of Rosebery Sixth Form Centre at Epsom and the Department wishes to record its thanks for the hospitality with which all visitors from home and abroad have been met and conducted round the centre.

52. The development project to extend the application of industrialised building for higher and further education, on which the Department was engaged with the U.G.C. and the Consortium of Local Authorities Special Programme (CLASP) was brought to a successful conclusion. A handbook for the Joint Development Project system was produced and the prototype building, an engineering department at Bath University, is being erected.

* H.M.S.O., 5s. 9d.

† See *Education and Science in 1967*, Section VI, paragraph 52.

Work on site on a second engineering building and a library will start within the next six months. Other buildings using the CLASP/J.D.P. system include a public library in Warwickshire and the civil engineering department of the new polytechnic in Glamorgan.

53. Responsibility for the operation of the new system is now being transferred to the central CLASP Group in Nottingham.

54. A sketch design for the comprehensive school at Maiden Erlegh in Berkshire is nearing completion. Work is proceeding on preliminary designs for a larger comprehensive school in Manchester.

55. The range of primary school furniture designed in association with CLASP and the Ministry of Public Building and Works is now in wide use. The furniture was successfully exhibited at the DIDACTA exhibition in Hanover in June. Designs for a full range of secondary school furniture are progressing and action is in hand to place the marketing of both ranges in the hands of a commercial firm with whom collaboration on matter of price and design will continue.

Laboratories Investigation Unit

56. The work of this new unit was started with a review of the information at present available to designers of laboratories, and with a detailed study of the transfer of the science and engineering departments in Surrey University from Battersea to their new buildings at Guildford.

57. Research studies were initiated with the Building Research Station on water storage and with the National Industrial Fuel Efficiency Service (NIFES) on electrical supplies.

Technical Unit for Sport

58. A Technical Unit for Sport was established and staffing should be completed shortly. The unit will give technical advice to local authorities, to the Ministry of Housing and Local Government and to the Department on swimming pools, sports halls and other buildings for sport and recreation. Initially its advice will be based on current good practice but it is expected that during 1969 the unit will undertake development work to establish standards of cost and construction in sports buildings.

Consortia

59. Refinements were made during the year to the existing CLASP system, and a new Mark IV B version was expected to be introduced during 1969. Development work also continued on the metric Mark V version, due to be brought into use in 1972. Further activity took place in the computer field, and it is hoped to programme all major supply items in early 1969. Extensive investigation into site management was carried out in conjunction with Nottinghamshire L.E.A., and a new coding procedure, developed in collaboration with other educational building consortia, was scheduled for introduction in April 1969.

60. The central development group of SCOLA continued its work of programme co-ordination and research into user requirements. A conference of member authorities was held at Shrewsbury in September to

establish priorities in preparation for full-scale development of a metric Mark, scheduled for introduction in 1972. A notable addition to full membership was the Inter-Diocesan Building Association, representing Roman Catholic interests in the midlands and north-west.

61. SEAC set up a central development group in London during the early part of the year. This is expected to move to permanent quarters in Epping at the beginning of 1969. The group will concentrate on development of the metric Mark III version, now expected to be brought into general use in 1971, and will also service members using the current Mark II version.

62. C.M.B. continued development work during the year with particular emphasis on structural problems. A conference of member authorities was held in Bristol in September to discuss future trends, and was followed by a decision at the annual conference in November to reorganise the central development team in order to make the maximum use of available resources in development of a metric Mark.

63. CLAW continued development of two new methods of structure during the year. Two fully metric prototypes were scheduled to start early in 1969, one of a single-storey system based on a new structural geometry and virtually maintenance-free, and a second based on a single-storey rationalised traditional system.

64. For the Anglian Standing Conference (A.S.C.) 1968 was mainly a year of consolidation. Extensive investigations into the provision of services in educational buildings was carried out, and considerable progress was made on improvements in documentation.

65. The Organisation of North Western Authorities for Rationalised Design (ONWARD) programme gathered momentum and work carried out in the Mark I version (mainly of brick built construction) increased considerably. The Church of England Diocesan Authorities in Blackburn, Liverpool and Manchester joined during the year, and preliminary work commenced on the development of a metric Mark.

66. The Metropolitan Architectural Consortium for Education (MACE) completed a mock-up using metric components during the first half of the year and evaluation of the exercise was completed by the end of November. At the end of the year sketch designs were well advanced for the erection of two pilot schemes during 1969-70, prior to general introduction of the system in 1970-71.

67. The Consortium of Local Education Authorities for the Provision of Science Equipment (CLEAPSE) further increased its membership to 46 with the addition of Shropshire, Isle of Wight and the County Borough of Bristol. After moving to Brunel University the Development Group started a scheme whereby on the first Saturday of each month, teachers may visit the Group to view the work being done and discuss their needs in respect of science equipment and their problems generally.

68. Progress was made during the year towards establishing the new consortium in the north of England: the Northern Consortium for Science Equipment.

69. Member authorities in the Local Authorities School Meals Equipment Consortium (LASMEC) continued to equip school kitchens with the LASMEC heavy kitchen equipment in increasing numbers; by the end of the year 1,000 school kitchens in England and Wales had been so equipped. Some design improvements were made and experimental work is taking place which it is hoped will effect further improvement. British Standards for LASMEC were published: these are *BS 4352:1968* for electric equipment and *BS 4353:1968* for gas.

70. The Counties Furniture Group (C.F.G.), established in 1961 on the initiative of Shropshire County Council, together with West Sussex County Council and Northampton County Borough, expanded substantially during 1968 as more L.E.A.s were persuaded by the merits of its school furniture range. The Group took a significant step forward in arranging for its members to make contracts with manufacturers on a sufficiently long term basis to ensure that essential development work could be properly undertaken and production techniques adequately investigated. As a result of an exhibition in Birmingham in November 1967, there was an increase in membership of the Group from nine to fourteen authorities, four of which are members of SCOLA.

Publications

71. Three new Building Bulletins were published in the year. *New Problems in School Design: Comprehensive Schools from Existing Buildings** illustrated in five case-histories the various problems which may confront L.E.A.s in adapting existing secondary school buildings to the comprehensive pattern and offered suggested solutions. *The Co-ordination of Components for Educational Building*† sought to identify characteristics which must be standardised if components are to be shared by many users and went some way to establish standards in terms of the desired performance of components. The third, *Secondary School Design: Modern Languages*‡ was an addition to the series of bulletins dealing with various aspects of secondary school design.

72. A new series of *Design Notes*, produced in the Department for free distribution to L.E.A.s and intended to set out in a handy form information on work in progress, was instituted with a note on *Building for Nursery Education*.

* H.M.S.O., 16s. 0d.

† H.M.S.O., 5s. 9d.

‡ H.M.S.O., 9s. 0d.

2. General

a. EDUCATIONAL RESEARCH

73. A sum of £367,865 was committed during the year in support of 40 research projects. These are listed in Appendix I. The total committed to the 135 projects current at the end of the year was £2,149,183. 35 projects supported by the Department were completed during the year; these are listed in Appendix H. Expenditure during the year exceeded £490,000, which includes £85,200 spent on projects commissioned for the Schools Council (Section I, paragraph 64), £23,000 for the Committee on Research and Development in Modern Languages (paragraph 80), and £25,900 on projects for the Public Schools Commission (Section I, paragraphs 44–47).

74. Professor W. Taylor, Director of the Institute of Education, University of Bristol, succeeded Dr. A. H. Halsey, University of Oxford, as Research Consultant to the Department in April.

75. In order to illustrate the range of research currently supported, some of the projects approved during the year are summarised below.

76. *Action research in educational priority areas.* This project arose from a recommendation of the Plowden Council that “research should be started to discover which of the developments in educational priority areas have the most constructive effects, so as to assist in planning the longer term programme to follow”.* The Department and the Social Science Research Council made a grant to the Department of Social and Administrative Studies, Oxford University, to carry out action research in co-operation with the Inner London Education Authority and the Yorkshire (West Riding), Birmingham and Liverpool L.E.A.s. The project is aimed at mobilising local initiative from L.E.A.s, head teachers and others for a programme of action and research based on schools with the object of raising the educational performance of children, giving encouragement to teachers and increasing the involvement of parents in their children’s education. The programme of action will be evaluated by the Universities of Birmingham, Liverpool and York.

77. *Identification of the tasks of Head and Senior Teachers.* A research project is being carried out at the University of Bristol Institute of Education, to determine the nature of the tasks facing head and senior teachers in large secondary schools. The project is in support of work being done on the provision of courses of training in school organisation and management for head and senior teachers.

78. *Programme of research in further education.* Brunel University have been given a grant over a five-year period to carry out research into a number of aspects of further education and to provide training in educational research techniques for further education staff.

* See paragraph 177, Volume 1, *Children and their Primary Schools*, H.M.S.O., £1 5s. 0d.

79. *Research programme on environmental design for school buildings.* This project has been designed to obtain data with a view to formulating new recommendations for lighting and acoustic conditions which take into account the trend of changes in school design. The main concern is to determine how far comfort could be improved by a new approach to the design of school interiors, which take account of the need for pleasant views, adequate ventilation and protection from the sun.

Committee on Research and Development in Modern Languages

80. A report on the work of the Committee during its first three years was published in February.* During 1968 the Committee considered applications for support for 16 projects, of which 10 were recommended to the Department. These are listed in Appendix I. The Scandinavian language projects are being undertaken in co-operation with the Scandinavian government institutions. On the recommendation of the Committee, the Nuffield Foundation agreed to continue its support for the Child Language Survey with a grant of £31,680 for a further four years. The survey consists of pilot studies of samples of the speech and writing of children in England, France, Germany, Russia and Spain as a basis for the construction of integrated teaching materials.

81. In addition to the regular meetings of the Committee and its four sub-committees, special groups have been convened to consider such matters as the teaching of Russian, languages for special purposes, the production of teaching materials by commercial publishers and tests of English for immigrant children. A further group will consider the comparative evaluation of methods. A working party is being set up jointly with the National Council for Educational Technology to continue the activities initiated by the Department for the evaluation of language laboratory equipment. Papers on psycholinguistics and sociolinguistics produced by members of the sub-committee on fundamental research have been made available for distribution to universities and colleges.

Centre for Information on Language Teaching

82. Since its establishment at the end of 1966, the Centre has been developing new information services for the benefit of modern language teaching. It shares with the English-Teaching Information Centre of the British Council the use and maintenance of a specialised reference library provides personal and postal advisory services to teachers and maintains an authoritative register of relevant research proceeding in Great Britain. Visitors have free access to these resources at State House, High Holborn, London, W.C.1. Publications include the quarterly *Language-Teaching Abstracts* and *A Language-Teaching Bibliography*. The Centre's staff assist at courses and conferences and maintain liaison with overseas centres.

* H.M.S.O., 5s. 0d.

b. EDUCATIONAL TECHNOLOGY

National Council for Educational Technology

83. The National Council for Educational Technology, which was set up in 1967,* held a residential conference at the Royal Naval College, Greenwich, in April to determine the priority areas of its work. Taking a broader view of educational technology than simply the application and use of audio-visual aids, the Council thought it right to give priority to improving productivity in education and training by means of such methods and techniques as might be available and relevant. The Council saw its work as involving not only "the development, application and evaluation of systems, techniques and aids in the field of human learning", but also such related questions as the use of manpower and plant and the inter-relationship of finance, planning and administration.

84. Work completed or in hand during 1968 included : feasibility studies of computer based learning systems, of a general familiarisation course in the principles of educational technology which would itself use such principles and of the development of materials for self-instruction in mathematics after G.C.E. "O" level and C.S.E. for non-specialists ; a prototype catalogue of multi-media teaching materials in physics ; the study (in collaboration with OSTI) of a common classification and retrieval system for materials other than books ; and reviews of the problems of copyright in videotaped and other materials, and of the need for specialised information services.

85. The Council's first report will be published in the spring of 1969.

The Educational Foundation for Visual Aids

86. The Department continued its support of the Foundation through grants towards the work of its Experimental Development Unit and its programme of training courses. In addition, assistance was given to the Foundation in moving its National Audio Visual Aids Centre from Gipsy Hill to a more central location in north London. 1968 saw the completion of a series of 16 lecturette films financed by the Department and produced through the agency of the Foundation ; these featured Sir Lawrence Bragg at the Royal Institution. They were made to preserve examples of his work—internegatives were placed in the National Film Archives—and to put his lectures within reach of schoolchildren unable to attend them. Among other films, produced through the Foundation was *Classroom of the Air*, which was sponsored by The Air League of Great Britain and the Department. This was first shown at the annual conference and exhibition of the National Committee for Audio Visual Aids in Education and the Foundation in July.

Courses

87. Courses in educational technology, audio-visual aids, programmed learning and educational television were included in the Department's programmes. The growing interest in educational technology and its media was also reflected in the over-subscription of a seminar held at Leeds

* See *Education and Science in 1967*, Section VI, paragraphs 82-84.

University in December for senior educational administrators, and in the City and Guilds of London Institute's examinations leading to certificates in the use of programmed learning, or in programme preparation, which were inaugurated in the autumn.

Language Laboratories

88. In September the Department published guidance on language laboratories.* This took account of the views of experienced users and provided a performance specification to help prospective purchasers to make a balanced assessment. It is to be followed in due course by a second survey containing a report by a unit set up by the Ministry of Technology on the assessment of a number of models. The two surveys should be read in conjunction with the Department's Building Bulletin on Modern Languages.†

Programmed Learning

89. The Department continued to support the National Centre for Programmed Learning at the University of Birmingham, which advises teachers and others interested in programmed learning and co-ordinates activities in this field. In 1968 the Centre was concerned with the use of programmed material combined with audio-visual aids, including closed circuit television. It published a bibliography of programmes in foreign language teaching and various research reports, worked on the compilation of a bibliography of research in audio-visual education and on the development of a decimal currency programme.

90. The number of authorities in whose areas programmed learning is used continued to increase in the year; 43 L.E.A. centres sent delegates to termly meetings held at the National Centre.

91. In April, the Association for Programmed Learning and Educational Technology held its third national conference. Planned for some 300 delegates and about 35 papers, the conference acquired international status with nearly 600 delegates from 20 countries and more than 80 papers.

92. A technical committee of the British Standards Institute continued its work on the preparation of standards for teaching machines and programmes. The Committee hopes to arrive at basic rules for writing programmes and agree on basic machine specifications. It has already drawn up standards for linear programmes and is now working on branching machines.

Closed Circuit Television

93. The use of closed circuit television increased during the year in all parts of the educational system. In September, the I.L.E.A. started the first stage of its system which promises, when in full operation, to be the largest in the world, serving over 1,000 schools and more than 100 colleges. Under the Authority's scheme the programmes are produced by teachers seconded for the purpose for a period of about two years.

* *Language Laboratories*, Education Survey 3, H.M.S.O., 4s. 0d.

† *Secondary School Design—Modern Languages*, Building Bulletin No. 43, H.M.S.O. 9s. 0d.

94. The ad hoc meetings of directors of closed circuit television systems operating in Great Britain, referred to in last year's report,* came to an end during the year with the founding of the National Educational Closed Circuit Television Association.

95. The first edition of the Association's quarterly bulletin was published in the autumn.

Radio and Broadcast Television

96. The resources that radio and television bring to the classroom and to the learning situation were increasingly recognised by both teacher and student ; broadcast programmes continued to make a valuable contribution to education. It is difficult to estimate the size of the audience for any given programme, but over 90 per cent of secondary schools and over 50 per cent of primary schools are equipped to receive broadcast television, and almost all schools have radio receivers.

97. The major developments and activities in educational broadcasting are fully recorded in the many publications issued by the broadcasting authorities but two activities which illustrate the wider support which these give to education are especially worthy of note. They are the School Teacher Fellowships in Educational Television awarded annually by the Independent Television Authority, and the lecturer attachment scheme whereby lecturers in colleges of education are released for periods of a term or longer and are helped by the B.B.C. and the School Broadcasting Council to study selected aspects of educational broadcasting. The aim of these schemes is to contribute to the further development among teachers of an informed and critical understanding of the educational value and possibilities of broadcast school television.

C. HIGHLY QUALIFIED MANPOWER

Dainton Report

98. A working group under the chairmanship of Dr. F. S. Dainton, set up by the C.S.P. in collaboration with the Committee on Manpower Resources for Science and Technology reported in February on the flow of candidates in science and technology into higher education.† The Report shows that during the 60's science and mathematics have relatively lost ground in the sixth form and universities, especially to economics and mixed arts and science courses. The Report suggested measures to reverse this swing away from science, and the correspondingly reduced flow of potential qualified scientific and technological manpower, by delaying decisions for or against science, engineering and technology until the latest possible moment, and making education and employment in these subjects more attractive. To prevent irreversible decisions by boys and girls at a relatively immature stage, and to make possible a much more flexible approach to subject and career decisions, the Report recommended a broad span of

* *Education and Science in 1967*, Section VI, paragraph 89.

† *The Flow of Candidates in Science and Technology into Higher Education*, Cmnd. 3541, H.M.S.O., 13s. 0d.

studies in the sixth form, of which the study of mathematics would form an essential element, and a broader-based university entrance requirement. The Report also stressed the need to increase the numbers of graduate science teachers and particularly to concentrate more of their effort on younger uncommitted pupils. According to the Report, the traditionally broad-based Scottish system, with its substantial science with arts groups and the determined national effort to modernise mathematics and science curricula in Scottish schools makes a serious movement away from mathematics and science in that country unlikely. The same relative trends against science, however, were sometimes evident in other European countries. France alone of the countries studied had succeeded in expanding university science and technology courses on the basis of a wide general education at school. The Report, which is addressed to the whole education service, has aroused a great deal of interest. Considerable efforts are of course already being made to improve and broaden science courses and to attract more teachers in scientific subjects.

Swann Report

99. In September 1968 the Working Group on Manpower for Scientific Growth under Professor M. M. Swann reported on the flow into employment of qualified scientists, engineers and technologists.* Its report is in series with that of the Dainton group extending from higher education into substantive employment. It found in particular that the present concentration of scientific talent in fundamental research in universities and government establishments, coupled with a significant migration abroad, was depriving industry and the schools of the qualified scientists and technologists they required. The Report saw such an imbalance as a threat to the future development of science, economic growth and technological advance in the country. To counteract this danger, the Report suggested that teaching should be made more attractive to science graduates by the introduction of financial incentives, that mature scientists in government and industry should be recruited for teaching; and that some undergraduate courses in science should be combined with preparation for teaching. Undergraduate and postgraduate courses should be revised to meet the needs of industry and refresher or post-experience courses provided for qualified manpower in industry. The Swann Group also recommended that industry should be prepared to employ graduates fully and effectively; to define its educational requirements clearly for the universities; and to take an active part in the planning, conduct and support of postgraduate and post-experience education and training.

McCarthy Report

100. The Committee on Manpower Resources for Science and Technology (the parent body of the Swann Group), and the C.S.P. commissioned a comparative study of the employment of highly specialised science and technology graduates in the U.K. and the U.S.A. The study, which was undertaken by Mr. M. C. McCarthy of I.C.I., was carried out on the advice of Professor Swann's group, in the hope that a comparison of British and

* *The Flow into Employment of Scientists, Engineers and Technologists*, Cmnd. 376 H.M.S.O., 17s. 6d.

American practice might shed some light on the factors governing the effective employment of scientists and engineers in an advanced technical society. The McCarthy Report* discussed the content of university courses, the patterns of employment of university graduates, the structure of their careers and the extent and timing of their education and training in the two countries. It suggests that initial education and training of scientists and technologists in Britain is more specialised and is concentrated in the early years of a career, and that there is therefore a danger that in a period of rapid technological change, British scientists and engineers will get out-of-date and be unable to respond to new challenges. The Report recommended the production of more "science-based generalists" rather than "science-based specialists" from the universities.

Other Enquiries

101. In addition to the Swann, Dainton and McCarthy Reports the committee for Manpower Resources also conducted, through working groups, two other enquiries of interest in this field. A group under Mr. G. S. Bosworth studied means of matching graduate education with the needs of industry in a specific field in "engineering training and the requirements of industry". This idea of a "matching section", encouraged by the U.G.C. in their Memorandum of Guidance to the universities, is giving rise to a number of experiments throughout the country. A group under Professor J. G. Ball has studied some facts of the use and mobility of scientists and technologists, both important factors in the deployment of highly qualified people.

Committees

102. The Committee on Manpower Resources for Science and Technology has had, under the chairmanship of Lord Jackson, a continuous and vigorous impact on policies for the education, training and employment of scientists and technologists. But it recognised that policy in these fields ought to be considered with full regard to other categories of highly qualified manpower. Interchangeability in employment is already substantial and is likely to increase, and it is clear that there are problems in supplying other qualified people such as statisticians, economists and town planners. The Committee is therefore to be replaced by a new committee which will advise the Government, through the Secretary of State for Education and Science (who has a co-ordinating function in this field) on manpower problems as a whole.

Earnings of Highly Qualified Manpower

103. In the spring the General Register Office carried out for the Department, as a follow-up of the 1966 Census of Population, a survey of the earnings of highly qualified manpower. A sample of 15,000 of those who returned qualifications in the 1966 sample Census of Population and 5,000 of those who did not report qualifications, but were in occupations where there was a high proportion of qualified people, were asked to state their income. This was the first survey on earnings and educational qualifications so far undertaken in the U.K. It is hoped that it will cast light on a number of manpower and higher education issues, including the economic returns to higher education.

* *The Employment of Highly Specialised Graduates*, Science Policy Studies No. 3, H.M.S.O., 4s. 6d.

d. AUTOMATIC DATA PROCESSING

The Department's Computers

104. The ICT 1301 computer in London continued to work on a three shift basis throughout the year. The new computer—an ICT 1904E—was delivered on time and installed in the new computer building in Darlington. Most of the work of reprogramming for this computer was completed but problems arising from the use of the manufacturer's software threatened to delay the transfer of work from the old computer. The transfer from London of clerical work associated with computer processing was accelerated and by the end of the year there were more than a hundred staff in the Automatic Data Processing Unit in Darlington, most of them new recruits.

The Mechanised Record of Teachers

105. Following earlier efforts* and with the co-operation of L.E.A.s there was a steady improvement in the efficiency of the system.

Joint Working Party on Teachers Records

106. The replies to the questionnaire,† which was sent to chief officers of L.E.A.s, indicated widespread support for the proposals made in the first report of the working party. The second report of the working party, prepared in June, was approved by the Department, the Local and Public Authorities' Computer Panel and the Local Authorities' Management Services and Computer Committee (LAMSAC). This report proposed the use of common forms and codes by the Department and L.E.A.s and advocated the establishment of a technical liaison group to consider the interchange of data in mechanised form. It described how a common logical system could be developed for maintaining records and assessing the salaries of teachers and recommended acceptance of offers from the G.L.C., on behalf of the I.L.E.A., and from the Birmingham L.E.A. to consider this in consultation with each other and with the Department. If the two authorities decide to develop the system they will make it available to other local authorities using similar computers (IBM 360/ICL System 4 and ICL 1900 series respectively).

e. STATISTICS

107. There was further action during the year towards a fuller integration of the statistics of education in respect of the separate educational sectors. In particular, work on the education model continued and progress was made on the development of the individualised data system.

Individualised Data System

108. The Working Group on Further Education Student Statistics recommended that an individualised data (I.D.) system in further education was feasible and should be introduced. Most of the authorities' and teachers' associations concerned had submitted their comments on the working group's report by the end of the year. The results of the 1-in-30 sample survey covering most categories of students in further education which was launched

* See *Education and Science in 1967*, Section VI, paragraph 106.

† *ibid*, paragraph 110.

‡ *ibid*, paragraph 93.

in November 1967 were being analysed. A second similar survey was mounted in November 1968. At the request of the C.N.A.A. the survey was being extended to collect individual data about all students on courses for C.N.A.A. degrees, rather than only a sample ; this extension was being introduced in stages, beginning in 1968 with those students enrolled on the first year of a course.

109. In the universities field, agreement was reached in principle between the U.G.C., the Committee of Vice-Chancellors, and the U.K. Education Departments for their implementation of a scheme for setting up I.D. records of students and staff ; and the Universities Central Council on Admissions agreed to operate the scheme using its own computer for maintaining the record. It was hoped to extend the 1968 pilot scheme for student records to cover all undergraduate students admitted to universities in October 1969.

Projections

110. During the year revised projections to 1986 on the demand for, and supply of, qualified teachers in maintained primary and secondary schools were prepared and the results were published in the Reports on Education series* and in *Statistics of Education, 1967, Volume 4, Teachers*.†

Publications

111. A further series of volumes of *Statistics of Education* were published or sent to the printer during the year, together with the second annual volume of *Statistics of Science and Technology*, published jointly with the Ministry of Technology.‡

112. The first of two special volumes giving results from the 1965-66 survey of the curriculum and deployment of teachers in secondary schools was published. The work on this survey had been considerably delayed owing to the heavy burden of errors that were found in the records of pupils' curricula. The first volume dealt with teachers' qualifications, training and deployment ; a second volume was being prepared dealing with curricula, sizes of teaching groups and some further analyses of teacher deployment.

113. The Department collaborated with the U.G.C. in producing a consolidated volume of statistics relating to universities: *Statistics of Education, 1966, Volume 6, Universities*.§

114. Work continued on the preparation of a volume of U.K. statistics, which was expected to be published about mid-1969.

f. LOCAL GOVERNMENT

115. As a result of Orders made under the provision of the Local Government Act 1958, two new L.E.A.s came into being on 1st April. One, Torbay, was formed by the amalgamation of the borough of Torquay, the urban districts of Paignton and Brixham and parts of the rural districts of Newton

* *The Supply of Teachers*, December 1968, No. 51, free on request to the Department, Room 102, Curzon Street, London, W.1.

† H.M.S.O., £1 0s. 0d.

‡ H.M.S.O., £1 2s. 6d.

§ H.M.S.O., £2 0s. 0d.

Abbot and Totnes. The other, Teesside, was formed by the amalgamation of the County Borough of Middlesbrough with the boroughs of Redcar, Stockton-on-Tees and Thornaby-on-Tees, together with parts of neighbouring urban and rural districts.

116. Under the provisions of Section 52 of the Local Government Act 1958, boroughs and urban districts with a population of 60,000 or more were entitled to claim excepted district status during the six months following 23rd July. Five county district councils of this size had exercised their right by the end of the year and directions had been issued in two cases constituting the area an excepted district for the purposes of Part III of the First Schedule to the Education Act 1944. Schemes of divisional administration had not been submitted by the end of the year but a scheme made by the urban district of Aldridge-Brownhills, following an earlier claim for excepted district status, was being considered.

117. In their report* published in July the Committee on Local Authority and Allied Personal Services (the Seebohm Committee) recommended the establishment at local authority level of a new department to be responsible for all local authority personal welfare services. These services would include educational welfare and child guidance services, which at present form part of the education service. At the end of the year the Committee's recommendations were still being studied by the government departments involved.

g. LIBRARY

118. The library's total stock now amounts to over 176,000 books, of which 5,600 were added during the current year. H.M. Inspectors' library now has approximately 31,000 books, over 600 having been added during the year, this being a substantial increase on last year.

119. Books lent to the Department's staff and other libraries amounted to over 5,000. Use of both the main library and the H.M. Inspectors' library by the Inspectorate for teachers' short courses has greatly increased, a total of 6,729 books having been lent out to 92 short courses. The library is making plans to meet in 1969 an even further increase in this aspect of its work.

120. The number of visitors using the library for reference purposes, both from at home and abroad has also increased. These have included parties of student-librarians and others. Facilities have been afforded to the London Schools of Librarianship to place students in the library for periods of practical work.

121. In September, the Chief Librarian accompanied by a member of the staff of OSTI attended, on behalf of the Department's Chief Information Officer, a meeting in Strasbourg of experts on new educational documentation techniques arranged by the Council of Europe Documentation Centre for Education.

* *Report of the Committee on Local Authority and Allied Personal Social Services* Cmnd. 3703 H.M.S.O., £1 11s. 0d.

h. INFORMATION SERVICES

122. The Department continued its efforts to meet an increasing interest by press and public in its work. The number of press notices issued during the year increased and special opportunities for journalists were arranged. Participation in exhibitions at home and abroad was organised both for the Department and for the Research Councils collectively. More publications were issued and there were advertising campaigns for married women teachers and science and mathematics teachers.

123. A highlight of the year was the issue of two films, the first time for twenty years: one concerned further education and was called *The Happy Ending*; the other, sponsored by the Department for the Interdepartmental Publicity Working Party on Engineering and Technology, was about engineering projects in schools and was entitled *An Experiment in Teaching*.

Press and Broadcasting

124. More than four hundred press notices were issued and a very substantial increase was noted in the number of press enquiries. Occasions were arranged for the Department's Ministers to meet press, radio and television journalists, and to visit educational and scientific establishments. Several special briefings for the education and science press were held during the year, and arrangements were made for parties of education correspondents to see colleges of education in various parts of the country.

125. During the year there was a welcome increase in the amount of television and radio coverage of education and science matters. Assistance was given on a wide range of news and current affairs items and in feature programmes dealing with the subjects in greater depth. Through the Central Office of Information many of the Department's policies and practices have been featured on television, film and radio throughout the world. The Department's Information Division has also provided help to the Rank Organisation in the production of "Look at Life" features on space research, nature conservation and the "brain drain".

Publications

126. The Department's quarterly journal *Trends in Education** completed its third year with a well established readership. Over the three year period a quarter of the articles published were on curriculum topics and school organisation, and teacher training also was well covered. Other subjects regularly included were educational research, further education, the social aspects of education, comparative education, economic and administrative developments and statistical trends.

127. During the year four in the new series of publications, *Education Surveys*, were published: *Drama*,† *Language Laboratories*,‡ *Blind and Partially Sighted Children*,§ and *Parent/Teacher Relations in Primary*

* H.M.S.O., 3s. 6d. Annual subscription 16s. 0d.

† Education Survey No. 2, H.M.S.O., 9s. 6d.

‡ Education Survey No. 3, H.M.S.O., 4s. 0d.

§ Education Survey No. 4, H.M.S.O., 6s. 0d.

*Schools.** These surveys by medical officers, HMIs and Departmental officials, were to supplement but not to replace the existing series of *Education Pamphlets* written by H.M. Inspectorate. The survey of parent/teacher relations described good practices in primary schools, as recommended by the Central Advisory Council (England) in the Plowden Report.

128. The Department has continued to supply editorial guidance to the magazine *Project†* which is produced on a three issues a year basis for the Interdepartmental Publicity Working Party on Technology and Engineering. Over 20,000 copies of each issue were sent out to schools and a recent survey covering over 700 schools showed that the magazine was well liked and well used.

129. Ten Reports on Education‡ were issued on the following topics :

No. 42. *The Distribution of Teachers.*—A description of the quota system which helps to secure a fair share of the teachers available for all areas. (January.)

No. 43. *Educational Finance.*—An outline of Exchequer assistance to local authorities and the pattern of educational spending. (February.)

No. 44. *The Swing from Science.*—A summary of the Dainton report. (March.)

No. 45. *Primary Education in Wales.*—Facts and figures from the Central Advisory Council for Education (Wales) report on *Primary Education in Wales*. (April.)

No. 46. *Changing School Science and Technology.*—Some recent developments in the modernisation of the curriculum. (May.)

No. 47. *The Certificate of Secondary Education.*—A description of the history, character and present position of this new secondary school examination. (June.)

No. 48. *Educating Gifted Children.*—Report of a conference. (July.)

No. 49.—*Colleges of Education.*—Fundamental changes resulting from the rapid expansion of the 1960s. (October.)

No. 50. *Drama in Education.*—A survey of drama teaching among children and young people. (November.)

No. 51. *The Supply of Teachers.*—A survey of the current supply position and some projections up to 1986. (December.)

130. Further titles in the *Education Information‡* series of pamphlets which appeared in 1968 were:

Teaching of Handicapped Pupils.—Categories of pupils requiring special educational treatment, the teaching qualifications required, the training courses available, and the salary allowances which these qualifications attract. (January.)

* Education Survey No. 5, H.M.S.O., 6s. 6d.

† H.M.S.O., 15s. 0d. annually for three copies.

‡ Free on request to Department of Education and Science, Room 102, Curzon Street, London, W.1.

The Organisation of Physical Education in England and Wales.—A broad description of the place of physical education in the school curricula, the voluntary organisations concerned, the training of specialist teachers and a list of current related publications issued by the Department. (February.)

Further Education

131. The 20-minute colour film, *The Happy Ending*, on the opportunities for higher education in the further education system (see also paragraph 147) was first shown in November; the Central Film Library has accepted almost 90 advance bookings for the first three months of 1969 and additional prints have been ordered to meet the demand.

132. The circulation of *On Course*,* the Department's journal of further education, continued at almost 50,000 copies per quarterly issue. *On Course* remains the centre-piece of the Department's further education publicity campaign, and the continuing volume of associated correspondence indicates that the journal is meeting a real need for information in the schools and industry.

133. The year also saw the publication of two new booklets in the *On Course Bulletins* series: No. 2—*Computer Education in the Technical Colleges* was published in May and No. 3—*The Diploma in Management Studies* in June. The fourth in the series *National Awards in Business Studies* is in preparation and is expected to be published during March 1969. The *Bulletins* cover particular aspects of further education for which there is a special need for more publicity and information, and the series has aroused great interest on the part of schools, industry, and the colleges.

134. Full reference to the 1968 Information and Advisory Service is made in Section II, paragraphs 30–32. Supporting publicity for the service included a special six page article in the June issue of *On Course*: this contained the names, addresses and telephone numbers of the local advisory officers. Almost 40,000 copies of a notice-board poster were distributed to schools, colleges, public libraries and post offices. A development in supporting publicity material in 1968 was the distribution of the new folder, *What next after "A" levels?* on a one-for-one basis to sixth formers in schools and students taking "A" levels and OND/ONC courses in the colleges. Almost all L.E.A.s took copies for their schools and colleges, and nearly 170,000 copies were distributed.

135. Complementing the Department's publicity for the service, were the various initiatives taken by L.E.A.s to publicise the scheme in their own areas. A number of authorities placed advertisements in local papers, held press conferences and special exhibitions, and arranged for officials connected with the service to visit schools to talk to sixth formers and others about further education in general and the advisory service in particular.

136. The free booklet, *Signposts to Higher Education*, was again revised and some 250,000 copies were issued in the summer through L.E.A.s to

* Enquiries to The Editor, Department of Education and Science, Room 102, Curzon Street, London, W.1.

senior pupils in maintained secondary schools, providing them with information on where to seek full details about courses in universities, colleges of education and technical colleges. Many direct grant and independent schools also took supplies.

Teacher Recruitment

137. The Department continued its activity to improve the supply of teachers, but with a change of emphasis.

138. National advertising campaigns aimed at bringing back married women teachers to the classroom had been held by the Department from 1964 to 1967. Discussions with L.E.A.s showed that the campaigns were achieving their objective and it was agreed that they should tail off. The last of the current series was held in 1968.

139. In August, to coincide with the issue of A-level results, a short press advertisement campaign was arranged to encourage unsuccessful university applicants to compete for late vacancies in colleges of education. Nearly 2,500 enquiries were received, resulting in 342 applications, of which 1944 were accepted.

140. In December a campaign was begun (to run to March 1969) aimed at increasing the number of well-qualified graduate teachers of science and mathematics.

Exhibitions

141. One main objective in getting exhibitions staged was to help in displaying collectively some of the work of the Research Councils. On the home front exhibitions were chosen in which research developments could be displayed to potential commercial developers. Overseas the opportunity was taken to display instruments and technique developments with export potential. The same considerations have applied to exhibitions staged for other branches of the Department, in particular Architects and Building. In chronological order the exhibitions covered were as follows:—

The *Physics Exhibition* at Alexandra Palace, London, was a prestige exhibition for scientists in which new developments in physics were displayed. The DES display was unified in terms of design and for the first time brought all four Research Councils together in one exhibit (March).

At the *Instruments Electronics and Automation Exhibition* at Olympia, London, a display was mounted of scientific instruments produced in the course of research in various Research Council establishments. These were all chosen for their commercial development potential (May).

For the *National Angling Show*, New Horticultural Hall, London, the Department was asked by N.E.R.C.'s Freshwater Biological Association to put in a display of their work on salmon disease and techniques for trapping fish for investigation (May).

For the *Chelsea Flower Show*, Royal Hospital, London, the Department was asked to put on displays for two of the A.R.C.'s establishments

The work of the National Vegetable Research Station, the development of Thiram soak technique for eliminating fungal diseases in seeds, and aspects of the work of the Long Ashton Research Station attracted considerable attention, and the exhibits were specially selected by Sir George Taylor, Director of the Royal Botanical Gardens, to show to H.R.H. Princess Alexandra (May).

At the 9th *Didacta European Education Materials Exhibition* at Hanover in West Germany, a display was mounted within the overall British participation to form a central Government unit with the Association of Education Equipment. The Department's display, which attracted a lot of attention from educationalists, teachers and administrators in Germany, was laid out to show the school furniture designed in Architects and Building Branch to fit in with the latest ideas of overall school design (June).

142. The Information Division undertook to organise exhibitions as part of its work for the Interdepartmental Publicity Working Party. A touring display for the recruitment of professional engineers was shown at a number of careers conventions and small exhibitions. Ideas and script were provided for the Government exhibition supplied to local organisers of "Engineers Weeks" in Glasgow, Liverpool, and Belfast, and the Division acted as public relations advisers to the local committees. The Division has been responsible for arranging the display and making arrangements for the tour of a mobile exhibition called *Technology Today*.

143. An exhibition was mounted at the Science Fairs organised by the British Association for the Advancement of Science in Dundee, Bangor and Halifax, showing the relation of the work of the Research Councils to the kind of work that can be done in schools; it was hoped that it would stimulate school children to undertake science projects more closely allied to the serious work done by the Research Councils. It incorporated two projects, *Light Trap* and *Hedgerow*, in which school children are invited to take part in collecting data for A.R.C. and N.E.R.C. Already it has resulted in a good deal of contact between Research Council establishments and schools.

144. At the *Interkama Exhibition* in Dusseldorf the Department displayed a range of instruments and automation techniques developed commercially from work done at the Research Councils. Although the firms who took part were satisfied with the value of the exercise it was too early to assess the direct commercial benefit.

145. The Department was also engaged in organising a display, on behalf of N.E.R.C., for *Oceanology International*, an exhibition and conference to take place in Brighton in February 1969.

Films

146. The Department is sponsoring a considerable programme of films designed to implement manpower and educational policies, including the attractive presentation of science and mathematics to school children.

147. The first, *The Happy Ending*, was designed to give sixth formers, teachers, parents and industry some idea of the courses available in technical

colleges leading to qualifications (including degrees) in many fields. The second, *An Experiment in Teaching*, aims to stimulate a sense of inquiry into applied science teaching in secondary schools and to show the scope of the work that is being done in this field through the Schools Council project and its relation to industrial technique in use. The films were introduced to an invited audience by the Secretary of State at a preview in the National Film Theatre on 7th October, followed by an immediate and continuing demand. The films are available on free loan from the Central Film Library.

3. International Relations (Education)*

Visitors and Overseas Visits

148. The Minister of Higher and Secondary Specialised Education of the U.S.S.R. was the guest of the Secretary of State early in the year. Several Ministers of Education from countries outside Europe were received by Ministers or officers of the Department while in London before or after attending the UNESCO General Conference in Paris. Delegations and groups of Inspectors, teachers, administrators, architects, journalists and students were received from many countries, notably the Commonwealth, Czechoslovakia, Denmark, the Federal Republic of Germany, France, Japan, Puerto Rico, South Africa, Sweden and the U.S.A. Large numbers of individual visitors came from nearly 100 different countries, the incidence being highest from Germany and the United States. The visitors' interests were wide ranging: the chief subjects on which they sought information were primary and secondary education, curriculum development, training of teachers, industrial training, youth service, physical education, educational technology, educational planning and research and school building.

149. Visits to overseas countries were made by members of H.M. Inspectorate to study and discuss matters such as pupil counselling, the education of young workers, educational technology and curriculum trends.

a. OTHER INTERNATIONAL CO-OPERATION

Council of Europe

150. The Department was represented at two meetings of the Council for Cultural Co-operation and at the main committees concerned with higher education and research, general and technical education, out-of-school education and the programme committee. Experts nominated by the Department at the request of the Council attended a number of meetings in Strasbourg and other specialists were nominated to participate in courses, seminars and meetings organised by other member countries of the Council of Europe. School building, civics, teaching by television, modern language teaching, the study and development of school curricula, various aspects of adult education, sport for women and educational documentation and research were some of the fields studied. A course, lasting five weeks in July and August, was organised jointly by the British Council and Ealing Technical College to teach English for beginners to thirty European youth leaders.

NATO

151. The Seventh Atlantic Study Conference on Education took place in Italy in September and discussed the possibility of using the inter-disciplinary approach to Atlantic Studies to create a better understanding of the Atlantic World and greater international comprehension in general. The U.K. delegation was led by a member of H.M. Inspectorate in Scotland and included the head of the history department of an English grammar school.

* International Relations (Science) is dealt with in Section IV, paragraphs 21-38.

O.E.C.D.

152. The Department was represented at the three sessions of the Committee for Scientific and Technical Personnel (C.S.T.P.) and contributed to the Committee's programme of work by participating in two meetings of the Educational Investment Planning Group (E.I.P.) and by co-operating in the provision of statistical material for the O.E.C.D. Policy Conference to be held in 1969. The Department, in collaboration with the Scottish Education Department and the Ministry of Education for Northern Ireland, prepared the U.K. text for a report on the demand for, and supply of, teachers in certain O.E.C.D. countries. In June, the Centre for Educational Research and Innovation was established under the aegis of O.E.C.D. to undertake a programme of research and to assist member countries in developing their education systems to meet the changing demands of modern society. The Department is co-operating in the work of the Centre.

International Bureau of Education

153. The 31st International Conference on Public Education organised under the auspices of I.B.E. and UNESCO met in Geneva in July. The main themes were *Education for International Understanding* and the *Study of Environment in School*. A member of H.M. Inspectorate led the U.K. delegation, which included a member of the Inspectorate in Scotland, an official from the Ministry of Education for Northern Ireland, and the headmistress of a secondary school. Discussions about the future of the I.B.E. were concluded towards the end of the year with the adoption by the General Conference of UNESCO and the Council of the I.B.E. of resolutions in favour of the I.B.E. becoming an international Centre of Comparative Education financed from the UNESCO budget. The I.B.E. will remain at Geneva and will be responsible for organising at least every alternate year an International Conference on Public Education.

UNESCO

154. Departmental assessors attended meetings of the U.K. National Commission for UNESCO and its committees. A member of H.M. Inspectorate was a member of the U.K. delegation to the General Conference in November and served as rapporteur of the Sub-Commission on Education. The Department was represented at a seminar on educational planning in Paris.

155. In Circular 5/68 the Department commended to the attention of L.E.A.s, the governing bodies and proprietors of schools and the teaching profession the recommendation on the status of teachers, drafted by the special inter-governmental conference in October 1966, and approved by the 14th General Conference of UNESCO.

156. A member of H.M. Inspectorate served on the Education Working Group of the United Kingdom Committee for Human Rights Year; its booklet entitled *It's not fair!* was sent to schools with a letter signed by the Secretary of State.

National Council for the Supply of Teachers Overseas

157. Departmental assessors attended meetings of the Council and its standing committees, including a new one concerned with teacher training.

Bilateral Mixed Commissions and Cultural Exchange Programmes

158. The Department was represented at meetings of the Mixed Commissions set up under the Cultural Conventions with Austria, Belgium, Greece, Italy, the Netherlands and Norway.

159. Educational exchanges continued under the Anglo-Soviet Cultural Agreement; 1967-69. 25 students from colleges of education, departments of education and universities attended a 30-day course in Moscow at Easter under arrangements made by the Educational Interchange Council. Arrangements for other reciprocal visits were made by the British Council.

160. In the summer vacation, 34 teachers of Russian attended a 30-day course in Russia and a similar number of Russian teachers visited the U.K. Under Article V of the Cultural Agreement contacts were developed between institutions of higher education and two Russian teachers joined the staff of the Schools Council Modern Language Teaching Materials Project at York University.

United States-United Kingdom Educational Commission

161. 34 Americans from 24 universities and representing 17 States took up Senior Fulbright awards at 18 different institutions of higher education in Britain. 76 American graduate students took up Fulbright scholarships and 21 had their scholarships renewed for up to one year. 12 students did not take up their awards because they were drafted for national service. 117 British graduate students and 102 British senior scholars were awarded Fulbright travel grants in support of scholarships tenable at American universities.

b. COMMONWEALTH EDUCATION CO-OPERATION

Fourth Commonwealth Education Conference

162. At the invitation of the Nigerian Government, the Fourth Commonwealth Education Conference was held in Lagos from 26th February to 9th March. 175 delegates, including 13 Ministers or Commissioners of Education, attended from 23 Commonwealth countries and certain British Dependent Territories. His Excellency Major-General Yakubu Gowon, Head of the Federal Military Government, opened the conference and Mr. W. O. Briggs, Federal Commissioner for Education, Nigeria, was elected chairman. The British delegation was led by Mr. A. E. Oram, Parliamentary Secretary to the Ministry of Overseas Development. The delegation included the Principal of London University, the Vice-Chancellor of Warwick University, the Chief Education Officer for the I.L.E.A., the Senior Chief Inspector of the Scottish Education Department, and an officer of the Department.

163. The conference report was published as Cmnd. 3624* ; it included reports of the five committees and the text of the opening speeches and of guest speakers' addresses.

Commonwealth Conference on Mathematics in Schools

164. This Conference, held in Trinidad in September, was concerned with the teaching of mathematics in both primary and secondary schools.

* H.M.S.O., 13s. 0d.

The British delegation was led by a member of H.M. Inspectorate and included a member of the Inspectorate in Scotland and a lecturer in mathematics at a Scottish college of education. Another member of H.M. Inspectorate attended at the invitation of the Secretariat and gave one of the main papers.

C. INTERCHANGE OF TEACHERS AND OTHER EDUCATIONAL EXCHANGES

The Commonwealth and the United States

165. The League for the Exchange of Commonwealth Teachers arranged 43 exchanges with Australia and New Zealand, 47 with Canada and one with Jamaica. Exchequer grants were made to assist British teachers with the cost of travel and the higher cost of living.

166. The British Committee for the Interchange of Teachers arranged 83 exchanges with the U.S.A. British teachers were assisted with Exchequer grants in the form of cost of living and dependants' allowances, while assistance with travel costs was given by the U.S.-U.K. Educational Commission.

167. Official welcomes and conferences were organised for teachers coming from the Commonwealth and the U.S.A. by the League and the British Interchange Committee. The annual garden party was held in June and was graced by the presence of Her Majesty Queen Elizabeth the Queen Mother.

Central Bureau for Educational Visits and Exchanges

168. The demand for the Bureau's advisory services continued to rise. Booklets describing opportunities for educational visits, working holidays and vacation courses abroad were sent to educational establishments in England and Wales and to individual enquirers. Over 130,000 copies of a booklet describing similar opportunities in Britain were distributed widely throughout the world. The Bureau received more than one-quarter million enquiries. A new opportunity made possible by collaboration with the French authorities was a one month term-time stay for British pupils in France where they attended school and received special instruction in skiing and other sports. It is estimated that at least 200,000 young Britons went to France for language courses, international meetings, home-to-home exchanges or other activities connected with their work at school and that about one-quarter million French pupils came to Britain for similar purposes.

169. The number of English language assistants placed in educational establishments in Europe increased to nearly 1,200. More places in France and Germany are still needed. The number of foreign assistants placed in British schools rose to a total of 2,845 (see Appendix D). The demand for French and Spanish assistants was met in full, but more German assistants could have been placed. There was a small increase in teacher interchanges with Europe.

APPENDIX A

Grants offered in 1968-69 to National Voluntary Youth Organisations under the Social and Physical Training Grant Regulations, 1939

Organisation	£
Army Cadet Force Association	2,175
Association for Jewish Youth	3,300
Baptist Union of Great Britain and Ireland	1,250
Boys' Brigade	6,600
Boys' Clubs of Wales	5,000
British Council of Churches	1,150
British Red Cross Society	2,450
Campaigners	500
Catholic Youth Service Council	2,900
Church Lads' Brigade	2,650
Church of England Youth Council	9,900
Concordia	400
Congregational Church in England and Wales	2,450
Co-operative Union	800
Council for Nature	3,650
Council of Social Service for Wales and Monmouthshire	840
Dockland Settlements	530
Duke of Edinburgh's Award	13,750
Elfrida Rathbone Association	400
Federation of Eighteen Plus Groups	2,550
Girls' Friendly Society	3,650
Girl Guides Association	13,700
Girl Guides Training Centre "Broneiron", Llandinum	1,730
Girls' Brigade	7,350
Girls' Venture Corps	8,000
International Voluntary Service	6,200
Methodist Association of Youth Clubs	9,050
National Association of Boys' Clubs	47,250
National Association of Youth Clubs	57,750
National Federation of Young Farmers' Clubs	12,550
National Youth Theatre	5,750
Ocean Youth Club	1,025
Outward Bound	1,025
Presbyterian Church of England	1,150
Presbyterian Church of Wales	350
Provincial Youth Council of the Church in Wales	2,000
St. John Ambulance Brigade	2,450
Salvation Army	1,000
Scout Association	15,800
Sea Cadet Corps and Girls' Nautical Training Corps	4,650
Task Force	2,100
Training Ship "Foudroyant"	3,150
Welsh Association of Youth Clubs	8,600
Welsh League of Youth	10,300
Young Christian Workers	4,850
Young Men's Christian Association	28,700
Young Women's Christian Association	17,250
Youth Hostels Association	6,100
	£346,725

APPENDIX A—continued

SPECIAL GRANTS 1968-69

Organisation							£
Brighton Archways Ventures	...	...	...	...	...	...	4,920
Christian Teamwork Institute of Education	...	...	...	...	...	...	1,500
Community Service Volunteers	...	...	...	...	...	...	1,250
Elfrida Rathbone Association	...	...	...	...	...	...	2,175
Girls' Venture Corps	...	...	...	...	...	...	500
Liverpool Youth Organisations Committee	...	...	...	...	...	...	2,250
Manchester and District Youth Development Trust	...	...	...	...	...	...	834
Manchester and District Youth Development Trust	...	...	...	...	...	...	1,660
National Association of Youth Clubs	...	...	...	...	...	...	625
National Association of Youth Clubs	...	...	...	...	...	...	4,000
National Trust	...	...	...	...	...	...	4,000
Sail Training Association	...	...	...	...	...	...	1,500
University of Leeds	...	...	...	...	...	...	3,000
University of Sussex	...	...	...	...	...	...	5,840
University College Swansea	...	...	...	...	...	...	965
Wiltshire Association of Youth Clubs	...	...	...	...	...	...	1,500
							£36,519
Young Volunteer Force Foundation	...	...	...	...	...	...	£35,000

APPENDIX B

Grants offered in 1968-69 to National Voluntary Sports Organisations under the Physical Training and Recreation Act 1937

Organisation	£
British Sports Association for the Disabled	1,600
Central Council of Physical Recreation	491,740
Council of Social Service for Wales and Monmouthshire	1,700
English Folk Dance and Song Society	15,675
National Playing Fields Association	13,000
Physical Education Association of Great Britain and Northern Ireland	1,200
Sports Turf Research Institute	6,500
Welsh Folk Dance Society	675
All England Netball Association	3,150
All England Women's Hockey Association	4,100
All England Women's Lacrosse Association	1,625
Amateur Athletic Association	27,300
Amateur Basket Ball Association	4,500
Amateur Boxing Association	3,000
Amateur Fencing Association	6,225
Amateur Judo Association	775
Amateur Rowing Association	4,050
Amateur Swimming Association	13,000
Amateur Volleyball Association	700
Badminton Association of England	4,100
British Amateur Gymnastic Association	3,250
British Amateur Weight-Lifters Association	2,700
British Amateur Wrestling Association	1,300
British Canoe Union	4,863
British Cycling Federation	5,650
British Gliding Association	3,345
British Horse Society	3,710
British Judo Association	2,550
British Mountaineering Council	1,135
British Orienteering Federation	1,000
British Parachute Association	2,300
British Sub-Aqua Club	3,715
British Water Ski Federation	2,350
Cyclists Touring Club	3,000
English Bowling Association	1,250
English Table Tennis Association	6,325
Football Association	5,000
Golf Development Council	700
Grand National Archery Society	2,100
Hockey Association	3,500
Keep Fit Association	2,500
Lawn Tennis Association	6,650
Medau Society of Great Britain and Northern Ireland	2,000
National Anglers Council	3,000
National Ski Federation of Great Britain	4,000
Ramblers' Association	1,000
Road Time Trials Council	1,000
Royal Life Saving Society	2,000
*Royal Yachting Association	—
Squash Rackets Association	2,875
Surf Life Saving Association of Great Britain	2,750
Universities Athletic Union	1,400
Wildfowlers' Association of Great Britain and Ireland	700
Women's Amateur Athletic Association	750

* Grant offered at rate of £2,950 per annum on appointment of National Sailing Coach.

APPENDIX B—continued

Organisation	£
Women's Cricket Association	600
Women's Inter-University Athletic Board	350
Women's League of Health and Beauty	675
Women's Squash Rackets Association	1,000
Football Association of Wales	1,850
Keep Fit Association of Wales	240
Welsh Amateur Basket Ball Association	320
Welsh Amateur Swimming Association	2,000
Welsh Badminton Union	400
Welsh Bowling Association	590
Welsh Hockey Association	680
Welsh Netball Association	210
Welsh Women's Hockey Association	105
Welsh Rugby Union	2,250
Table Tennis Association of Wales	300
Boys' Schools Lawn Tennis Association	225
British Schools Judo Association	375
English Schools Athletic Association	300
English Schools Badminton Association	350
English Schools Basket Ball Association	475
English Schools Cricket Association	425
English Schools Cycling Association	200
English Schools Gymnastic Association	200
English Schools Rugby Football Union	550
†English Schools Rugby League Association	—
English Senior Schools' Football Association	200
English Schools Swimming Association	350
English Schools' Table Tennis Association	75
†English Schools Trampoline Association	—
Girls' Schools Lawn Tennis Association	225
National School Sailing Association	750
Schools Amateur Boxing Association	325
Welsh Schools Football Association	315
Welsh Schools Rugby Union	160
Welsh Schools Swimming Association	50
Welsh Secondary Schools Amateur Athletic Association	250
Welsh Secondary Schools Cricket Association	210
Welsh Secondary Schools Rugby Union	160

† Amounts not yet settled.

APPENDIX C

Grants to National Associations under the Further Education (Grant) Regulations, 1959

Organisation	£
British Drama League	4,500
Educational Centres Association	2,680
National Council of Young Men's Christian Associations	3,380
National Federation of Women's Institutes	5,200
National Union of Townswomen's Guilds	4,680
National Institute of Adult Education	3,000
Rural Music Schools	5,500
Workers' Educational Association	3,550
	32,490

APPENDIX D

(i) Overseas Assistants Serving in England and Wales

	1965	1966	1967	1968
Algerian	—	—	2	12
Austrian	16	17	29	27
Belgian	2	2	8	16
French	1,345	1,546	1,807	2,036
German	381	368	429	480
Italian	10	10	12	14
Moroccan	—	6	6	12
Spanish	108	139	169	199
Swiss... ..	24	21	39	31
Tunisian	2	—	—	18
	1,888	2,109	2,501	2,845

(ii) Assistants from England and Wales Serving in Europe and North Africa

	1965	1966	1967	1968
Austria	29	32	34	33
Belgium	3	2	3	3
France	776	757	786	854
Germany	191	217	195	239
Italy	7	10	11	14
Spain	21	30	28	49
Switzerland	8	8	9	14
Tunisia	—	—	—	—
	1,035	1,056	1,066	1,206

APPENDIX E

Grants to Voluntary Bodies for Educational Services (under the Educational Services and Research Regulations, 1946, Grant Regulations No. 4)

Organisation	Grant made in 1967-68	Grant made or approved in 1968-69
	£	£
Association for Liberal Education... ..	250	250
British Association for the Advancement of Science	13,744	14,300
British Interchange Committee of the English Speaking Union	4,880	4,510
Central Bureau for Educational Visits and Exchanges	44,938	49,187
Council for Education in World Citizenship	1,200	1,200
Council for National Academic Awards	10,000	14,395
Educational Foundation for Visual Aids and Royal Institution of Great Britain (Films of Sir Lawrence Bragg Lectures) ...	17,225	575
Educational Foundation for Visual Aids (Films on Air Education)	2,000	—
Educational Foundation for Visual Aids (Training)	5,000	5,000
Educational Foundation for Visual Aids (Accommodation) ...	—	10,000
League for the Exchange of Commonwealth Teachers	3,639	3,394
National Council for Educational Technology (Administration)	21,500	33,000
National Foundation for Educational Research	10,000	10,000
Nursery School Association of Great Britain and Northern Ireland	250	250

APPENDIX F

(i) Orders under the Education Acts, etc.

The following table shows the number and description of the Orders made under the Education Acts 1944 to 1968, together with certain other enactments, during the year 1968:—

Description*	England	Wales
Orders under the Education Acts 1944 to 1968:—		
Classification of Voluntary Schools (Section 15)		
Controlled Schools (Primary Schools)	2	—
Aided Schools (Primary Schools)	69	5
(Secundary Schools)	1	1
(Comprehensive Schools)	2	—
Special Agreement Schools (Primary Schools)	8	—
Revocation of Aided Status (Secondary Schools)	2	—
Transfer of School to new site (Section 16(1))	152	8
Substitution of School (Section 16(2))	15	1
Management and Government of Schools (Section 17)		
Instruments of Management (Primary Schools)	113	—
Instruments of Government (Secondary Schools)	24	1
Articles of Government (Secondary Schools)	11	—
Exemption from byelaws (Section 63(2))	1	—
School struck off Register or Teacher disqualified (Section 72)	9	1
Prevention of Reverter (School Sites Act 1841) (Section 86(2))	2	—
Acquisition of Land: Compulsory Purchase Orders confirmed (Section 90)†	63	—
Certificates of Expenses attributable to displaced pupils (Section 104)	32	—
Revocation of Varying Orders (Section 111)	11	—
Establishment of Joint Education Committees (First Schedule Part II)	1	1
Expenses of Enlargement, Controlled Schools (Section 1, Education Act 1946)	11	—
Division of Schools (Section 2, Education Act 1946)	10	—
Costs of establishing Controlled Schools (Section 2, Education Act 1953)	1	—
Under other Acts:—		
Public Libraries Acts: Bye-Laws confirmed	18	9
Powers transferred	1	—
Order for payment of costs of Public Inquiry (Section 290(5) Local Government Act 1933)	1	—
TOTAL	560	27

The Sections referred to are Sections of the Education Act 1944, except where otherwise stated. There were 12 Public Inquiries held in England in connection with Compulsory Purchase Orders.

APPENDIX F—continued

(ii) Orders under the Charities Act, etc.

The following table shows the number and description of the Schemes and Orders under the Charities Act, or otherwise relating to Charitable Trusts, made during the year 1968:—

Description	England	Wales
Orders establishing Schemes	115	8
Other Orders:—		
for the appointment or removal of trustees	127	3
giving authority to sell, exchange or otherwise dispose of land ...	624	44
for the commutation of rent charges or like payments to Foundations	7	—
giving authority to grant building, mining or other leases or to execute agreements for leases or directions thereon, or to surrender or accept the surrender of leases	93	7
approving the purchase of land or the erection or improvement of buildings, or otherwise relating to loans or capital expenditure for the benefit of Foundations	153	9
pension or gratuities	1	—
appointing members of committees of management	15	—
varying Orders	4	—
authorising legal proceedings	2	—
giving authority to sell exchange or otherwise dispose of land under the Open Spaces Act 1906	1	—
TOTAL	1,142	71

(iii) Schemes under the Endowed Schools Acts

During the year 1968, the number of Schemes dealt with under the Endowed Schools Acts was as follows:*

Issued for publication in draft	1
Finally settled by the Secretary of State and issued for final publication	0
Approved by Her Majesty in Council	3

Two of the three approved Schemes were made under Section 86 of the Education Act 1944, as amended by the Education Act 1946, directing that the Endowed School Acts, subject to certain modifications, should apply to the foundations contained in the Schedules thereto. The areas covered by these two Schemes are the dioceses of London and Salisbury.

The object of these Section 86 Schemes is to enable the endowments of closed church schools, including the proceeds of sale and leases of the school premises, to be used for the erection, improvement or enlargement of other schools of the same denomination. Schools which are scheduled to close in the development plans of local education authorities are included in the Schemes as well as those schools which are already closed, but, when a school which is still open is included, it is provided that the Scheme shall have no effect on it, other than to transfer the trusteeship, until it is closed.

The third approved Scheme concerned the Royal Russell School in the London Borough of Croydon, regulated by the Royal Russell School Acts 1954 and 1962, and was made with the object of amending the Act of 1954 to provide for the extension of the rules governing the admittance of children to the School and to vary the constitution of the members of the Institution.

* The figures relate in each instance to the stage of the proceedings which had been reached by the end of the year.

APPENDIX G

Statutory Instruments made by the Secretary of State during the year

			<i>Net Price</i>	
			s.	d.
The British Museum (Authorised Repositories) Order 1968	S.I. 1968/1604	...	4	
The County and Voluntary Schools (Notices) Regulations 1968	S.I. 1968/615	...	6	
The Direct Grant Schools (Amendment) Regulations 1968	S.I. 1968/1148	...	6	
The National Gallery (Lending Outside the United Kingdom No. 1) Order 1968	S.I. 1968/828	...	6	
The National Gallery (Lending Outside the United Kingdom No. 2) Order 1968	S.I. 1968/1179	...	6	
The Provision of Milk and Meals Amending Regulations 1968	S.I. 1968/534	...	6	
The Provision of Milk and Meals (Amendment No. 2) Regulations 1968	S.I. 1968/1251	...	4	
The Remuneration of Teachers (Further Education) Order 1968	S.I. 1968/197	...	6	
The Remuneration of Teachers (Farm Institutes) Order 1968	S.I. 1968/345	...	6	
The Remuneration of Teachers (Primary and Secondary Schools) Amending Order 1968	S.I. 1968/375	...	10	
The Remuneration of Teachers (Further Education) (Amendment) Order 1968	S.I. 1968/1798	...	6	
The Remuneration of Teachers (Primary and Secondary Schools) (Amendment No. 2) Order 1968	S.I. 1968/1799	...	9	
The Remuneration of Teachers (Family Benefits) (Amending) Regulations 1968	S.I. 1968/1914	...	1	0
The Schools (Amendment) Regulations 1968	S.I. 1968/1281	...	9	
The School Health Service (Amendment) Regulations 1968	S.I. 1968/1252	...	4	
The Superannuation (English Teaching and Scottish Local Government) Interchange Rules 1968	S.I. 1968/1210	...	2	0
The Superannuation (Teaching and Public Boards) Interchange Rules 1968	S.I. 1968/1120	...	1	9
The Superannuation (Teaching and Public Transport Services) Interchange Rules 1968	S.I. 1968/1470	...	1	9
The Teachers' Superannuation (Amending Regulations) 1968	S.I. 1968/1353	...	9	
The Teachers' Superannuation Account (Rates of Interest) Regulations 1968	S.I. 1968/1944	...	1	0
The University and Other Awards (Amendment) Regulations 1968	S.I. 1968/1296	...	1	0

Obtainable from Her Majesty's Stationery Office—postage extra.

APPENDIX H

Research projects supported by the Department and completed during 1968

Dr. R. J. Lambert, King's College, Cambridge	Aspects of boarding education: a comparative study
National Foundation for Educational Research	Follow-up of earlier investigations into reading ability, mathematical attainment and selection procedure
Mr. James Britton, London University Institute of Education	Research into the application of "multiple marking" techniques to G.C.E. English papers
Professor J. Wrigley, Southampton University, Department of Education	A study of the interaction of the curriculum and examinations with special reference to C.S.E.
Mr. J. F. Kerr, University of Leicester, School of Education	A study of methods of examining other than by written papers
Professor N. R. Butler and Dr. M. L. Kellmer-Pringle, National Bureau for Co-operation in Child Care	National Child Development Study: a follow-up survey of 17,000 children born in 1958 to study the relationship between perinatal and social factors and subsequent educational development.
National Foundation for Educational Research	A study of class organisation in small primary schools
National Foundation for Educational Research	Summary and analysis of research work relevant to:—
	(a) the proposed raising of school leaving age to 16
	(b) sixth forms
National Foundation for Educational Research	English national analysis of the international project for the evaluation of educational achievement
Professor F. W. Warburton, University of Manchester, Department of Education	Evaluation of available evidence relevant to the use of the initial teaching alphabet in the teaching of reading in schools
Miss June Derrick, Leeds University Institute of Education	Enquiry into the problem of teaching English to the children of immigrants
Mr. G. B. Harrison, University of Nottingham Institute of Education	Pilot study of the teaching of applied science and technology in schools
Schools Council	Research into new major and minor sixth form courses and examinations
Mr. J. J. Eggleston, University of Leicester, School of Education	Study in handicrafts with special reference to the R.S.L.A. programme (raising of school-leaving age)
National Foundation for Educational Research	Three ancillary projects relating to the work of the Examinations and Tests Research Unit
	(1) Crossmarking, (2) Wrigley Tests Calibration, (3) Item Bank
Mr. W. K. Lotwick, Trinity College, Carmarthen	Follow-up study of the social attitudes of secondary modern school leavers
Professor J. W. Tibble, University of Leicester School of Education	Adolescent self-concept at school and work together with related studies of career choice and social perception
Advisory Centre for Education	A study of the problems of environment at technical colleges
National Foundation for Educational Research	A comparative study of the merits of block and day release for students following engineering and related craft courses
National Foundation for Educational Research	A study of factors leading to the discontinuation of engineering apprentice courses (follow-up of earlier investigation into student allocation)
Dr. E. Rudd, University of Essex Unit for Research into Higher Education	A survey of the early careers of holders of higher degrees.
Dr. L. F. Thomas, Brunel University ...	A search for optimal conditions of learning in teaching technically complex subject matter
Professor P. M. Worsley, University of Manchester, Department of Sociology	A sociological study of the schools in the Manchester area
Dr. J. A. Leisten, University of Sheffield, Department of Chemistry	Evaluation of programmed texts in advanced physical chemistry
London University, Institute of Education	Co-ordination of research into the use of closed circuit television in colleges of education (southern area)

APPENDIX H—*continued*

Mr. R. A. Becher, National Council for Educational Technology	Feasibility study of introductory educational technology courses
Professor Moser, Unit of Economic and Statistical Studies, London School of Economics	Finances of Public Schools
Mr. Selby Smith, Oxford University Institute of Economics and Statistics	A survey related to a cost benefit analysis of the English system of further education based on selected technical colleges
Mr. B. Whitworth, Local Government Operational Research Unit	Research into the relationship between population shift and school places (feasibility study of "global" approach)
Mr. G. M. Goatman, The Universities Central Council on Admissions	Analysis of the student's place of residence in relation to the university of study
Mr. White, The Economist Intelligence Unit	Survey of the British Museum Library on behalf of the National Libraries Committee
Professor H. Himmelweit, London School of Economics	Follow-up study of adolescents with reference to their educational background
Dr. M. Young, Institute of Community Studies	An evaluation of an experiment linking maintained and independent schools in association with Swindon Education Committee and Marlborough College
Dr. T. A. Nicholson, Atomic Energy Research Establishment	Preliminary investigation of applying permutation procedures to school time-tabling patterns
Professor C. H. Dobinson, University of Reading Department of Education	Teaching of engineering in technical colleges

APPENDIX I

Research projects commissioned or accepted for grant aid by the Department in 1968

Schools—Organisation

Dr. T. A. J. Nicholson, Atomic Energy Research Establishment, Harwell	Preliminary investigation of feasibility of applying permutation procedures to school timetabling problems
Mr. M. A. Brimer; University of Bristol Institute of Education	Identification of the tasks of Head and Senior teachers
Mr. Eric Hoyle, University of Manchester, Department of Education	A review on behalf of the Public Schools Commission, of available research findings on a number of subjects, relevant to the Commission's terms of reference
National Foundation for Educational Research	Follow-up into the secondary school stage of the effect of streaming in primary schools
National Foundation for Educational Research	Further statistical analysis of data acquired in a comparable survey of the effect of streaming in primary schools

Special Services

Dr. F. W. Flaherty, Moor House Special School	Follow-up study of a number of severely handicapped ex-pupils with communication difficulties, who are now living at home and in gainful employment
Professor A. G. Ward, University of Leeds, Department of Food and Leather	A two-year experimental project to supply pre-cooked deep frozen regenerated meats to a number of Leeds schools

Further Education

Professor S. F. Cotgrove, Bath University of Technology, School of Humanities and Social Studies	Research into the effect of sandwich courses on student attitudes and careers
Professor Furneaux, Brunel University ...	Research relevant to the needs of Further Education and to provide training in educational research techniques
Mr. John Pinder, Political and Economic Planning, London	Research into business studies and ONC and HNC courses

Teacher Training

Mr. M. A. Brimer, University of Bristol Institute of Education	Second phase of the study of use made of the probationary year of teachers
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General

Mr. White, The Economist Intelligence Unit	Survey of British Museum Library on behalf of National Libraries Committee
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Sociology in Education

Dr. A. H. Halsey, University of Oxford, Department of Sociological and Administrative Studies	Action Research in educational priority areas
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Educational Technology

Mr. A. Hughes, British Association ...	Production of a prototype catalogue of materials available for the teaching of physics
Mr. R. A. Becher, National Council for Educational Technology	Feasibility study of introductory educational technology courses
Mr. R. A. Becher, National Council for Educational Technology	Post "O" Level/Certificate of Secondary Education Mathematics feasibility study

Educational Planning, Economics and Finance

Mr. B. Whitworth, Local Government Operational Research Unit, Institute of Public Administration	Feasibility study of the "global" approach to the research on population shift formula
Mr. G. M. Goatman, Universities' Central Council on Admissions	Analysis of student's place of residence in relation to university of study
Mrs. P. G. Allen, ...	Pilot enquiry into student charges in university halls of residence and hostels

APPENDIX I—*continued*

Professor M. H. Peston, University of London, Queen Mary College Department of Economics	Research into the process of decision making in education at local authority level
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Architects and Building Projects

Messrs. Ralph Hopkinson and Newton Watson, 10 Woburn Square, W.C.1. ...	Research programme on environmental design for school buildings
National Industrial Fuel Efficiency Service	A study of the electric service requirements of university type science buildings
Development group of Architects and Building Branch in conjunction with the Building Research Station, Garston, Herts	Research on component interchangeability in building construction: mock-up building in preparation for the Metric change
Furniture Industry Research Association...	Anthropometric survey of school children ages 3-18 years
A. G. Aldersey Williams, Engineering Design Consultants	Production of a building bulletin on acoustics in schools

Modern Languages—Projects recommended by the Committee on Research and Development in Modern Languages

Professor Hinton Thomas, University of Birmingham, Department of Education	Research in advanced language teaching (project relating to German)
Professor E. W. Hawkins, University of York	Educational evaluation of language laboratory learning at school level
Dr. R. D. Bathurst, University of Cambridge, Faculty of Oriental Studies ...	Feasibility study of natural language analysis of Arabic by computer
Dr. Popperwell, University of Cambridge, Faculty of Modern and Mediaeval Languages	Recorded anthology in Norwegian for use in the teaching of intermediate and advanced students
Professor R. F. F. Smith, University of Birmingham, Department of Russian Language and Literature	Russian language laboratory course for social scientists
Mr. C. G. Simpson, School of Oriental Studies, University of Durham	Preparation of linguistic material for university students of Turkish
Dr. M. Blanc, University of London, Birkbeck College	The effect of socio-linguistic background on second language
Professor E. L. Bredsdorff, University of Cambridge, Department of Scandinavian Studies	Production of an audio-lingual course in Danish
Professor D. M. Mennie, University of Newcastle, Department of German and Scandinavian Studies	Production of a course in the Swedish language for use in establishments of higher education in Great Britain
Professor J. M. Sinclair, University of Birmingham	Study to develop tests of English for immigrant children of primary school age

Schools—Projects commissioned for the Schools Council for the Curriculum and Examinations

Professor Joselin, University of Aston in Birmingham, Department of Education	Research into the relationship between the Youth Service and the Schools
Professor R. D'Aeth, University of Exeter, Department of Education	Research into the relationship between parental support and educational attainment in Devon primary schools
Professor B. Morris, University of Bristol, Institute of Education	Experiment in co-operation between teachers in new methods of teaching
National Foundation for Educational Research	Extension to a third cohort of the evaluation of Nuffield/Schools Council project in teaching of French in primary schools
National Foundation for Educational Research	Survey of socio-linguistic research

APPENDIX J

Publications

(i) Parliamentary Papers

					£	s.	d.
<i>Command 3503</i>	...	The Proposed 300 GeV Accelerator...	...	...		7	
<i>Command 3510</i>	...	University Grants Committee. Annual Survey. Academic Year 1966-67	...	...		3	
<i>Command 3564</i>	...	Education and Science in 1967	...	...		13	
<i>Command 3675</i>	...	The Report of the Working Group in Molecular Biology	...	...		2	
<i>Command 3541</i>	...	Enquiry into the Flow of Candidates in Science and Technology into Higher Education	...	...		13	
<i>Command 3760</i>	...	The Report on the Flow into Employment of Scientists, Engineers and Technologists	...	...		17	
<i>Command 3703</i>	...	Report of the Committee on Local Authority and Allied Personal Social Services (Joint presentation by D.E.S., Home Department, Housing and Local Government and Health)	...	...	1	11	
		Report of the Social Science Research Council, April 1967-March 1968	...	...		4	
<i>Command 3849</i>	...	Export of Works of Art 1967-68. 15th Report of the Reviewing Committee	...	...		6	
<i>Command 3860</i>	...	Observations by the Department of Education and Science on the Recommendation in Part I of the Report from the Select Committee on Education and Science 1967-68	...	...			
<i>Acts</i>	...	Education Act, 1968, Chapter 17	...	...		1	
		Education (No. 2) Act, 1968, Chapter 37	...	...			

(ii) Non-Parliamentary

<i>Building Bulletins</i>							
No. 29	...	...	Designing for Science. Oxford School Development Project	...	...	13	
No. 41	...	...	Sixth-Form Centre. Rosebery County School for Girls, Epsom, Surrey	...	...	6	
No. 40	...	...	New Problems in School Design. Comprehensive Schools from Existing Buildings	...	...	16	
No. 42	...	...	The Co-ordination of Components in Education Building	...	...	5	
No. 43	...	...	Secondary School Design. Modern Languages	...	...	9	
			Design Note 1—Building for Nursery Education	...	...	Unpriced	
<i>Reports</i>	...	...	Report of the Arbitral Body on Salaries for Teachers in Establishments for Further Education	...	...	3	
			University Teachers' Superannuation Report of a Working Party (Chairman: Sir G. Maddex, K.B.E.)	...	...	6	
			Primary Education in Wales. Report by Central Advisory Council for Education (Wales). English and Welsh editions	...	...	1	12
			Scales of Salaries for Teachers in Establishments for Further Education, England and Wales 1967	...	...	6	
			Committee on Research and Development in Modern Languages. 1st Report (Joint publication with the Scottish Education Department)	...	...	5	
			Scales of Salaries for the Teaching Staff of Farm Institutes and for Teachers of Agricultural (including Horticultural) Subjects, England and Wales	...	...	4	
			Advisory Panel on Students Maintenance Grants. A Report	...	...	2	
			Report of The Committee on Football	...	...	11	
			Working Party on Educational Psychologists (Summerfield Report)	...	...	2	5
			Report of The Public Schools Commission. Vol. 1	...	...	1	2
			Vol. 2	...	...	2	5
			The Education of Deaf Children. The Possible Place of Finger Spelling and Signing	...	...	12	
			A Report on the Use of Buildings and Equipment	...	...	4	
			Education and Training for Scientific and Technological Library and Information Work	...	...	7	

APPENDIX J—continued

										£	s.	d.
Supply and Training of Librarians (Library Advisory Council, England and Wales)										6	6	
Report of the Arbitral Body on Salaries and Teachers in Primary and Secondary Schools. London Area ...										1	9	
<i>Education Pamphlets</i>												
No. 53	...	...	Safety at School	...	...	...	...	...	...	9	0	
No. 54	...	...	Archives and Education	...	...	...	...	...	...	4	0	
<i>Education Surveys</i>												
No. 2	...	...	Drama	...	...	...	...	...	...	9	6	
No. 3	...	...	Language Laboratories	...	...	...	...	...	...	4	0	
No. 4	...	...	Blind and Partially Sighted Children	...	...	...	...	...	...	6	0	
No. 5	...	...	Parent/Teacher Relations in Primary Schools	...	...	...	...	...	...	6	6	
<i>Index</i>												
No. 10	...	...	Index to Department of Education and Science Circulars and Administrative Memoranda Current on 1st January 1968	...	...	...	...	...	...	5	0	
No. 69	...	...	Local Education Authority 1965-1966	...	...	...	...	...	...	8	0	
No. 70	...	...	List of Independent Schools in England and Wales Recognised as Efficient under Rules 16	...	...	...	...	...	...	12	6	
<i>Reports on Education (Unpriced)</i>												
No. 42	...	...	Distribution of Teachers	...	...	...	...	January				
No. 43	...	...	Educational Finance	...	...	...	...	February				
No. 44	...	...	The Swing from Science	...	...	...	...	March				
No. 45	...	...	Primary Education in Wales	...	...	...	...	April				
No. 46	...	...	Changing School Science and Technology	...	...	...	...	May				
No. 47	...	...	The Certificate of Secondary Education	...	...	...	...	June				
No. 48	...	...	Educating Gifted Children	...	...	...	...	July				
No. 49	...	...	Colleges of Education	...	...	...	...	October				
No. 50	...	...	Drama in Education	...	...	...	...	November				
No. 51	...	...	The Supply of Teachers	...	...	...	...	December				
Un-numbered Report			Report on the Arts—A Going Concern	...	...	...	...	September				
<i>Trends in Education</i>												
No. 9	...	...	Annual subscription (H.M.S.O.) including postage	...	...	...	...			16	0	
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APPENDIX J—continued

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<i>Project</i>		A magazine about engineering for science fifth and sixth formers				
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		Science Policy Studies No. 2. "Occupational Choice"				3
		Science Policy Studies No. 3: "The Employment of Highly Specialised Graduates"				4
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		A Handbook of Health Education				14
		A Memorandum on the Diploma in Management Studies				4
		Science Research in British Universities and Colleges, 1967–68				
		Vol. I. Physical Sciences		2	5	
		Vol. II. Biological Sciences		2	5	
		Vol. III. Social Sciences		2	0	
		Collection of Residual Data. Report by the Advisory Committee on Pesticides and Other Toxic Chemicals...				4
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		Signposts to Higher Education (1968)				Unpriced
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		Teaching of Handicapped Pupils				Unpriced
		The Organisation of Physical Education in England and Wales				Unpriced
<i>Statistics of Education</i>		Statistics of Education 1967. Vol. 1. Schools		1	0	
		Statistics of Education 1966 Vol. 2. G.C.E., C.S.E. and School Leavers		1	0	
		Statistics of Education 1966 Vol. 3. Further Education...				17
		Statistics of Education 1966 Vol. 4. Teachers		1	0	
		Statistics of Education 1967 Vol. 5. Awards and Finance				13
		Special Series—Statistics of Education SS1—Survey of the Curriculum and Deployment of Teachers (Secondary Schools) 1965–66 Part 1: Teachers		1	5	
Schools Council						
<i>Examinations Bulletins</i>						
No. 18	...	The Certificate of Secondary Education. The Place of the Personal Topic—History				3
<i>Working Papers</i>						
No. 17	...	Community Service and the Curriculum				4
No. 18	...	Technology and the Schools				5
No. 20	...	Sixth Form Examining Methods				3
<i>Other Publications</i>	...	Humanities for the Young School Leaver—An approach through English				4
		The First Three Years				3
		Curriculum Innovation in Practice—Report on the Third International Curriculum Conference				5
		Change for a pound				4
		Enquiry I. Young School Leavers				15
<i>Welsh Committee</i>	...	Educational Research in Wales				5
National Lending Library for Science and Technology						
		Translation Bulletin Vol. 10. Monthly Annual Subscription (H.M.S.O.), including postage		3	18	
		British Research and Development Reports Vol. 3. Monthly				Unpriced

APPENDIX J—continued

	Index of Conference Proceedings received by the NLL			
	Nos. 12-15. Quarterly	Unpriced		
	List of Books Received from the U.S.S.R. and Translated			
	Books Nos. 113-124. Monthly	Unpriced		
	U.K. Medlars information retrieval service: A Handbook			
	for Users, A. J. Hanley. 2nd Edition October	Unpriced		
<i>Russian Book</i>	Automatic Control Systems for Machine Tools. Barun,			
<i>Translations</i>	V. A., et al.	2 15 6		
	Corrosion and Protection of Structural Alloys	1 10 0		
	Behaviour of Hydrogen in Fusion Welding. Frolov, V. V.	17 6		
	Drawing under conditions of Hydrodynamic Lubrication.			
	Kolmogrov, V. L., et al.	17 6		
	Principles of Design Engineering. L'Vov, D. S....	1 12 6		
	The Fossil Ostracoda of the U.S.S.R.: family Cyprididae.			
	Mandel'shtam, M. I.	2 13 0		
	Broaching with Alloy Tools. Pronkin, N. F.	10 6		
	Regulations for the Organisation and Execution of the			
	Technological Process in Mills	1 1 0		
	The Biology of Nutrition of Farm Animals. Sineshchekov,			
	A. D.	2 6 6		
	The Physiology of Agricultural Animals. Sineshchekov,			
	A. D.	2 5 6		
	Friction Welding. Vavilov, A. F., et al.	15 0		
	Russian Translation Service. Translations Nos. RTS			
	4462-5053 (Various prices, available only from the			
	N.L.L.).			

(iii) Circulars and Administrative Memoranda

(issued to local education authorities and, as appropriate, others concerned with the provision and administration of educational facilities).

<i>Circulars</i>				
1/68	Corporal Punishment	2nd January 1968		
2/68	Employment and Distribution of Teachers ...	12th January 1968		
3/68	Co-operation Between Libraries	10th January 1968		
4/68	Teachers Misconduct. Revision of Statutory			
	Instruments	17th January 1968		
5/68	Recommendations Concerning The Status of			
	Teachers (3s. 3d.)	29th January 1968		
6/68	Educational Building Programmes. Raising the			
	School Leaving Age	19th January 1968		
2/64 Amended	Provision of Language and Export Courses for			
Appx. A	Business Firms	21st February 1968		
7/68	University of Manchester. Department of			
	Audiology and Education of the Deaf: Four-			
	year Course Leading to the Degree of Bachelor			
	of Education in Audiology and Education of			
	the Deaf	18th April 1968		
8/68	Voluntary Community Service by Young People	26th April 1968		
Joint Circular M. of				
Health, Home Office				
and M.H.L.G.)				
9/68	Experimental Supply of Head Worn Hearing			
Joint Circular with	Aids	4th June 1968		
M. of Health.)				
10/68	Alteration in Charges and Eligibility for Free			
	Meals	23rd April 1968		
11/68	Arrangement of Remission of The School Dinner			
	Charge	23rd April 1968		
12/68	The Education Act 1968	30th April 1968		
13/68	Education Building Programme Procedures for			
	1969-70 and Subsequent Years	8th July 1968		
14/68	Milk in Schools Scheme. Withdrawal from			
	Secondary Schools	9th July 1968		
15/68	Qualified Teachers and Other Persons in Schools			
	(2s.)	20th August 1968		
16/68	The Teachers and The School Meals Service ...	15th August 1968		

APPENDIX J—continued

17/68	International Affairs and the Commonwealth in Education	23rd September 1968
18/68	Children in Hospitals for the Mentally Sub-normal	8th October 1968.
19/68	Urban Programme	4th October 1968
(Joint Circular with Home Office and M. of Health.)		
20/68	Major Building Programmes for Handicapped Pupils and School Clinics	4th October 1968
295	Education Grants for Service Children	27th September 1968
Amendment No. 7		
11/68	The School Meals Service.	
Appx I, Add. I	Remission of the School Dinner Charge	27th September 1968
21/68	Grants to Recognised Students Attending Approved Courses of Teacher Training (3s.)	31st October 1968
22/68	The Education (No. 2) Act 1968	9th October 1968
23/68	British Standard Time. School Hours and Traffic Dangers... ..	22nd November 1968
<i>Welsh Circulars</i>		
1/68	St. David's Day 1968. The Central Advisory Council For Education (Wales)	23rd February 1968
2/68	Investiture of the Prince of Wales, 1st July 1969: School Holidays	10th September 1968
<i>Administrative Memoranda</i>		
1/68	Recognition of Experience in the Residential Care of Children	8th January 1968
2/68	Physical Education. Apparatus in Schools and Colleges	30th January 1968
3/68	Salary Scales for Teachers in Establishments for Further Education	16th February 1968
9/67	Licences for Radio and Television Broadcasting Receiving Sets in Schools and other Educational Institutions	20th February 1968
Add. No. 1	Decimal Currency... ..	27th February 1968
4/68	Salary Scales for the Teaching Staff of Farm Institutes and for Teachers of Agricultural (including Horticultural) Subjects	8th March 1968
6/68	Salary Scales for Teachers in Primary and Secondary Schools	27th March 1968
7/68	Grants to Students	16th May 1968
8/68	Technical College Resources. The Use of Buildings and Equipment	11th June 1968
9/68	Interchange of Teachers and Assistants with Overseas Countries 1969-70	25th July 1968
10/68	Probation of Qualified Teachers... ..	20th August 1968
11/68	Teachers "Superannuation"	17th September 1968
2/65	Poisonous Substances in Pencils and other Allied Materials used in Schools	14th October 1968
(Amendment)	Charges for Industrial Training Provided by Colleges of Further Education	16th October 1968
9/66	Salary Scales for Teachers in Primary and Secondary Schools and Establishments of Further Education	19th November 1968
(Addendum No. 1)		
12/68	Report of the Committee on Scales of Salaries for the Teaching Staff of Colleges of Education (England and Wales) 1967	21st November 1968
14/68	Metrication in the Construction Industry	2nd December 1968
26/67	One-year and One-term Courses of Further Training for Qualified Teachers 1968-69	12th December 1968
(Amendment)	One-year and One-term Courses of Further Training for Qualified Teachers 1969-70	30th December 1968
15/68		

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